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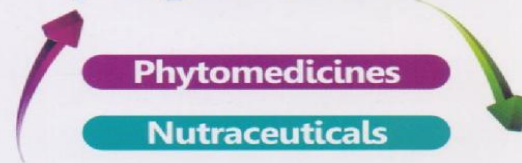
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EDITORIAL

During the 16th National Conference at the Department of Sangyahan, I.M.S., B.H.U., Varanasi on 17-19th January 2014 at the occasion of celebration of Foudation Day of Department of Sangyahan the august gathering discussed about the need of Integration of Ayurved with other system of medicine. A resolution was made to send to the Government of India as well as to the state Governments to proceed for Act Amendment, so that integration of different system of medicine can be implemented in every state and can be practiced by practitioners of each system of medicine. Bharat Ratna Pt. Madan Mohan Malviya ji started Ayurvedic College with following Goal:

- ☐ Of the Upavedas, particular attention will be bestowed on the Ayurved. It will be brought up-to-date by the encorporation of the result achieved by other nations in anatomy, physiology, surgery and other department of the medical sciences.
- ☐ The ultimate aim of this department will be to provide the whole country with Vaidyas well qualified both as Physician and surgeon.
- ☐ Botanical garden will be maintained for the culture of herbs and roots for medical use , Vegetables and Plants for study of fibres, dyes and tans.
- ☐ There will be laboratories for teaching and preparation of Rasas, tail, Aswas and other medicines and for carrying on original investigation and experiments.

Eminent graduates and licentiates in European medicine and surgery will be employed to give instruction and training to the students of Ayurved and to help the Vaidyas in preparing works in Sanskrit and Indian vernaculars on Anatamy, Physiology, Surgery, Hygiene and other sciences auxiliary to the Ayurved. (History of the B.H.U., page 66, page125.) He dreamed Ayurved as a total health system.

At the occasion of All Indea Ayurvedic Conference Jaipur-1926, Pt.Madan Mohan Malviya ji in his Presidential Speech , addressed about origin of Ayurved, Principles of Ayurved, Swasthvit, Rsayan etc.He dreamed an Ayurvedic college with-

- ☐ A fully equipped Astang Ayurved.
- ☐ A research department
- ☐ Aushadhalaya
- ☐ Ayurvedic journal
- ☐ Fresh vegetable drug house
- ☐ Sanshodhan Section
- ☐ Nursing house


Since my entry in the Department of Shalya Shalakya and opting Sangyahan as my favored discipline I honestly try my lebel best to follow Malviyaji and to stregthen the surgical discipline by means of stengthening Sangyahan. But some of our own members are trying to destroy my all the efforts of last 32 years due to their wasted interest. This will be a set back not to my efforts but our beloved Guruji-Dr.S.B.Pande-the great soul who initiated in this direction and always supported me. I pray God to shower his blessing to these misguided members to get their path in correct way.

JAI HIND

JAI SANGYAHARAN

JAY AYURVED

Devendra Nath Pande
Chief Editor, Professor & Founder Head, Deptt. of Sangyahan,
I.M.S., B.H.U., Varanasi.

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PREMEDICANTS			ANTICHOLINERGICS		
		NEON			
		Offers			
WIDER CHOICE					

Prevalence of Oral Sub mucus Fibrosis in Eastern Uttar Pradesh

***Dr Rajesh Kumar **Dr.R.K.Singh *** Dr Amber Kesarwani**

Abstract: The study was conducted to assess the prevalence of oral submucous fibrosis among patients visiting in Otolaryngology Outpatient Department, Sir Sunderlal Hospital, Banaras Hindu University, Varanasi of both sexes and aged 18 years and above. A cross-sectional study was conducted to access the prevalence of oral submucous fibrosis among 3240 outpatients at Department of Otolaryngology, Sir Sunderlal Hospital, Institute of Medical Sciences, Banaras Hindu University, Varanasi. The clinical diagnosis of OSMF was made when patient showed characteristic features of OSMF. Subjects were interviewed on basis of preformed questionnaire. The statistical analysis was done with SPSS software version 16.0. The prevalence of OSMF in the study population was 120 (3.7%). Majority of subjects were males 98 (81.7%). The Male: female ratio is 4.45:1. The prevalence of OSMF was maximum in 21 to 30 years of age group 45 (37.5%). The observations and findings of the study clearly indicate that prevalence of OSMF and use of tobacco products is on the rise in younger age group. Preventive measures like awareness programs should be started as early as possible. Tobacco counselling on various tobacco related products like gutkha, khaini, betel nut, cessation program should be periodically conducted.

Keywords: Prevalence, Oral submucous fibrosis, Arecanut

Introduction: Oral submucous fibrosis (OSMF) has been defined as an insidious chronic debilitating disease and a well-recognized potentially malignant condition of unknown etiology reported mainly in Indians and affecting oral cavity. The basic change is a fibroblastic transformation of connective tissue lamina propria preceded by vesicle formation with epithelial atrophy leading to stiffness of oral mucosa, trismus and progressive difficulty in eating^{1,2}. OSMF was first described by **Schwartz (1952)**² as "atrophic idiopathic mucosal oris" and a year later it was named as 'submucous fibrosis of the palate and pillars' by **Joshi (1953)**^{4,14} in India.

The WHO definition for an oral precancerous condition 'A generalized pathological state of the oral mucosa associated with a significantly increased risk of oral cancer', accords well with the characteristics of oral submucous fibrosis.

It was predominantly seen in people of Asian descent, but as a result of globalization it has become major health concern in Western countries as well. According to 2002 statistics 5 million people were affected from the Indian subcontinent alone⁵. Although recent statistics are not available, they are expected to be much higher.

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The disease is widely prevalent in Varanasi and nearby places of eastern Uttar Pradesh because of habit of chewing tobacco products and “Pan” for which Varanasi is famous worldwide. Unlike “Pan”, which has to be freshly prepared before use, “guthka” is available in compact sachets, which are easy to handle and allow it to be consumed at any point during the day. There is rise seen in younger generation including school and college going generation due to easy availability. The habit often starts among young people, usually as a fashion or status symbol, because of peer pressure, or to imitate parents.

People visiting to us from different parts of eastern Uttar Pradesh, highly have the habit of these tobacco products *viz.* Pan, Guthka, Khaini, Supari etc. leading to high prevalence of Oral Submucous fibrosis which is a premalignant condition among them. So, this study was conducted to assess the prevalence of OSMF among the Outpatients visiting to our OPD aged 18 years and above.

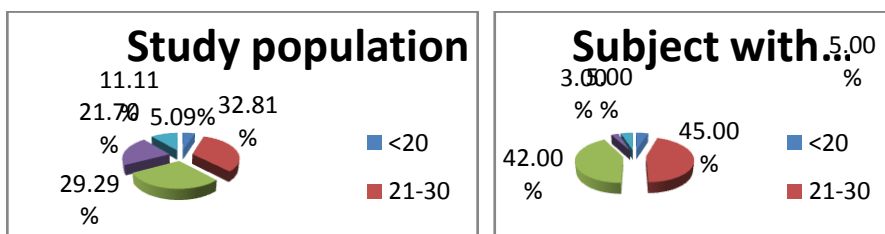
Materials and Methods: A cross-sectional study was conducted in Outpatient Department of Otolaryngology, Sir Sunderlal Hospital, Institute of Medical Sciences, Banaras Hindu University, and Varanasi for time period of one year from January 2013 to December 2013.

Total of 3,240 patients, aged 18 years and above who were interested to take part in the study were included in the study. An ethical clearance was obtained from the ethical committee of Institute of Medical Sciences, Banaras Hindu University. Oral consent was obtained from each participant prior to the study. A pilot study was conducted to check the validity of the questionnaire and based upon the results; modification was done in the design of the questionnaire. Patients were classified into five age groups: Less than 20 years, 21 to 30 years, 31 to 40 years, 41 to 50 years and above 50 years. The clinical diagnosis of OSMF was made when subject showed characteristic features of OSMF, blanching and stiffness of the oral mucosa, presence of palpable bands in the buccal or labial mucosa and difficulty in mouth opening and protruding the tongue.⁶

The statistical analysis was done with SPSS software version 16.0

Observation and Results:

Out of 3240 subjects, 120 (3.7%) subjects presented with OSMF (Table 1). Majority of subjects 45 (1.39%) belong to age group of 21 to 30 years, followed by 42 (1.3%) subjects in 31 to 40 years, 23 (0.71%) subjects in 41 to 50 years and 5 (0.15%) subjects each in both < 20 years and > 50 years age group.



Graph 1 Distribution of study population as well as subjects with OSMF

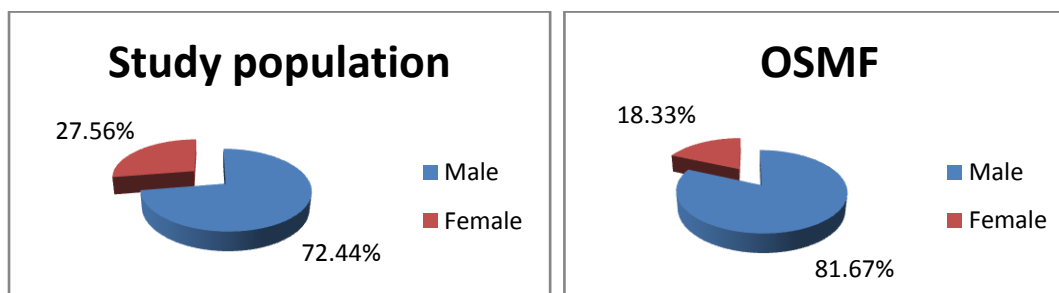
Graph1 represents the distribution of study population as well as subjects with OSMF according to their age group. Majority of subjects 1063 (32.8%) were in age group of 21-30, 949 (29.3%) were in age group of 31-40, 703 (21.7%) were in age group of 41-50, 360 (11.1%) were in age group of above 50 years and only a small amount of 165 (5.1%) were of age group under 20 years. Among subjects with OSMF, majority of subjects 45 (37.5%) were in 21-30 years of age group followed by 42 (35%) subjects in 31-40 years age group, 23 (19.1%) subjects in 41-50 years age group and 5 (4.2%) each in under 20 years of age group and above 50 years age group.

Table 1 also shows the distribution of study population and subjects with OSMF included in our study.

Table 1. Distribution of study population and subject with OSMF according to age group

Age group	Study population		Subject with OSMF	
	No.	%age	No.	%age
<20	165	5.1	5	0.15
21-30	1063	32.8	45	1.39
31-40	949	29.3	42	1.30
41-50	703	21.7	3	0.71
>50	360	11	5	0.15

Graph 2 represents distribution of study population and subjects with OSMF according to their sex. The total study population comprised of 2347 (72.4%) males and 893 (27.6%) females while among the subjects with OSMF, out of 120, 98 (81.7%) were males and 22 (18.3%) were females. Thus the total male to female ratio in subjects with OSMF in our study comes to be 4.45:1.

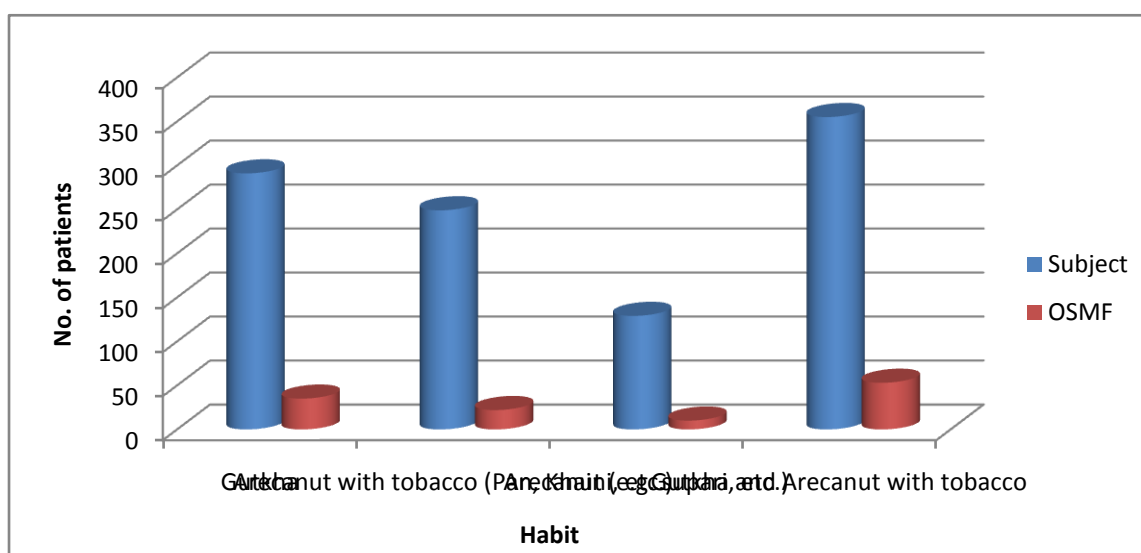


Graph 2 Distribution of study population and subjects with OSMF according to their sex

Table 2 and Graph 3 shows that out of 3,240 subjects, 1,024 (31.60%) subjects have the habit of some tobacco related substance abuse excluding smoking. Majority of the subjects 355 (34.7%) had both gutkha and areca nut with tobacco (pan) chewing habit, 291 (28.4%) subjects had the habit of chewing gutkha alone, 249 (24.3%) subjects used arecanut and tobacco while 129 (12.6%) subjects used only arecanut.

Table 2. Substance abuse among study population and its association with OSMF

Habits	Subject	OSMF
Guthka	291 (28.4%)	35 (29.2%)
Arecanut with tobacco (Pan, Khaini, etc.)	249 (24.5%)	22 (18.3%)
Arecanut (e.g. supari, etc.)	129 (12.6%)	10 (8.3%)
Guthka and Arecanut with tobacco	355 (34.7%)	53 (44.2%)



Graph 3 Personal habits of substance abuse among study population and subjects with OSMF

Among the 120 (3.7%) subjects with OSMF, majority of 53 (44.2%) subjects have the habit of guthka with areca nut and tobacco followed by 35 (29.2%) subjects with the habit of guthka alone, 22 (18.3%) subjects having the habit of areca nut with tobacco and 10 (8.3%) subjects used arecanut alone.

Discussion:The overall prevalence of OSMF in the present study was 120 (3.7%) which correlates to the study by Seedat HA⁷ in which prevalence of submucous fibrosis were 3.4%. Gupta PC⁸ also studied the prevalence of OSMF at Bhavnagar, Gujrat in 1998 and found prevalence to be 3.2% among tobacco users which was 0.16 %⁹ previously in a study done in 1967. Earlier studies done by Pindborg et al¹³ (1965) also showed a low prevalence of 0.51% in OSMF.

The result of our study implies a clear rise in prevalence of OSMF. The increasing prevalence could be attributed to increasing trend in consumption of arecanut and arecanut-based products which are started as fashion symbol among young generation but soon they get addicted because of its addictive and psychoactive nature.¹⁰⁻¹²

In the present study, higher number of the OSMF subjects 45 (1.39%) and 42 (1.3%) belong to 21 to 30 and 31 to 40 years age group respectively. Similar results were obtained in the study conducted by Anuradha P and Gaurav Mishra (2011)¹⁵, Sami MA et al (2006)¹⁰ and Khanna et al (2000)¹⁴ indicating higher prevalence in 3rd decade of life.

In present study, among 120 OSMF subjects 98 (81.7%) were males and 22 (18.3%) were females, thus showing a male predominance with a ratio of 4.45:1, similar male predominance was also reported in studies conducted by Anuradha P and Gaurav Mishra (2011)¹⁵, Afroz N et al (2006)¹⁶, Khanna et al (1999)¹⁴. However, earlier studies done by Schwartz (1952), Pindborg (1964) revealed female predominance. Thus, it is obvious that the current scenario is changing and this can be attributed to easy availability of tobacco related products and new commercial betel quid preparations to younger generation.

In present study, prevalence of OSMF among patients chewing gutkha along with arecanut and tobacco was higher, 53 (44.2%) followed by gutkha, 35 (29.2%). This finding is similar with the study done by Goel S et al (2010)¹⁷ which showed commercial areca nut products 40% among OSMF subjects and Ahmad MS et al (2006) 25 showed that 69% were using gutkha. The Guthka consumption is hazardous and chewing arecanut with tobacco contributes synergistically.

Conclusion: The result of the present study provides trends of substance abuse habits and development of OSMF in Eastern Uttar Pradesh. The observations of the study indicates that prevalence of OSMFs on the rise in Eastern Uttar Pradesh. Moreover the rise in prevalence and the habit of substance abuse is more in younger generation, which contributes maximum to their household economy.

Since, the morbidity is increasing in this productive age group, preventive measures like awareness programs should be started as early as possible. Further studies should be conducted regularly to monitor prevalence of oral submucous fibrosis in different areas where arecanut and its products are prevalent. As they always say, prevention is better than cure; application of strict laws for prevention of arecanut use could help to tackle this public health issue.

References:

1. Pindborg JJ, Odont and Sirsat SM. Oral submucous fibrosis. *Oral Surgery, Oral Medicine, Oral Pathology* 1966; 22(6): 764-779.
2. Wahi PM, et al. Submucous fibrosis of oral cavity. Histo- pathological studies. *British Journal of Cancer* 1966;4: 676-87.
3. Schwartz J. Atrophia idiopathica (tropica) mucosal oris demonstrated at the eleventh international Dental Congress, 1952; London (Cited by Sirsat and Khanolkar, 1962).
4. Joshi SG. SMF of palate and pillars. *Indian Journal of Otolaryngology* 1953; 4: 1-4.
5. Rajalalitha P, Vali S. Molecular pathogenesis of oral submucous fibrosis—a collagen metabolic disorder. *J Oral Pathol Med* 2005; 34: 321-8.
6. Pindborg JJ. Oral submucous fibrosis as a precancerous condition. *J Dent Res Supplement* 1966;45(3):546-53.
7. Seedat HA, Vanwyk CW. Betelnut chewing and submucous fibrosis in Durban. *South Africa Med Journal* 1988;74(3): 568-71.

- 8 .Gupta PC, Sinor PN, et al. Oral submucous fibrosis in India: A new epidemic. *The National Medical Journal India* 1998;11(3): 113-16.
- 9.. Pindborg JJ, Chawla TN, Mishra RK, Nagpaul RK, Gupta VK. Frequency of oral carcinoma, leukoplakia, leukokeratosis, leukoedema, submucous fibrosis and lichen planus in 10,000 Indians in Lucknow, Uttar Pradesh, India preliminary. *J Dent Res* 1965;44:615.
10. Sami AM, Ali SA, KK Chaubey. Original article: Epidemio logical and etiological study of oral submucous fibrosis among gutkha chewers of Patna, Bihar. *J Indian Soc Pedod Prev Dent* 2006;24:84-89.
11. Hazarey VK, Ughade SN, Mundhe KA, Erlewad DM. Oral submucous fibrosis: Study of 1000 cases from Central India. *Oral Pathol Med* 2007;36:12-17.
12. Rooban T, Elizabeth J, Anusa R, Girish G. Health hazards of chewing arecanut and products containing arecanut. *Calicut Medical Journal* 2005;3(2):1-8.
- 13.Pindborg JJ, Mehta FS, Gupta PC, Daftary DK. Prevalence of oral submucous fibrosis among 50915 Indian villagers. *Tata Institute of Fundamental Research* 1968;646-54.
- 14 Khanna JN, Andrade NN. Oral submucous fibrosis: a new concept in surgical management. Report of 100 cases. *Int J Oral Maxillofac Surg* 1995; 24: 433–439.
15. Anuradha P, Mishra Gaurav. Prevalence of oral submucous fibrosis among people in periurban areas of Lucknow city, UP JIAPHD 2011;18:121-30.
16. Afroz N, Hasan SA, Naseem S. Oral submucous fibrosis: A distressing disease with malignant potential. *Indian Journal of Community Medicine* 2006;31(4):270-77.
17. Goel S, Ahmed J, Singh MP, Nahar P. Oral submucous fibrosis: A clinico-histopathological comparative study in population of Southern Rajasthan. *J Carcinogene Mutagene* 2010;1:108.

APPEAL

All the life members who had already paid Rs. 500.00 as Life Membership fee are requested to send a DD of Rs. 500.00 in favor of A.A.I.M. payable at Varanasi for purchase of Land of office of Association (C.C.) at Varanasi. The members who will donate Rs. 1001.00 or more will be presented a certificate and their name will be published in the Journal with their Photographs. Due to increase in Postal Charges the Journal will be send only to those members who will send Rs. 100.00 as Postal Charges by M.O./ D.D. in favor of *Sangyahan Shodh*.

Induction of labour in Ayurveda

*** Dr. Shipra ** Prof. Neelam**

Abstract: Induction of labour is defined as an intervention intended to artificially initiate uterine contractions resulting in progressive effacement and dilatation of the cervix. This should ideally result in the birth of the baby through vaginal route. (RCOG2001). Induction of labour is one of the most common interventions practised in obstetrics. In Ayurveda it is described under the heading of “Anagata prasava” by Charaka. Sushruta mentioned it as “garbhasanga” which denotes attachment of foetus or cessation in progress of labour. Yogaratnakar and Bhavmishra have mentioned “delay in labour”

सा चेदावीभिः संक्लिश्यमाना न प्रजायेताथैनां----- (Ch.Sh. 8/38)

If the women in spite of having labour pains do not deliver, Ayurveda describes various skill, management, drugs and medicaments that inducted the labour to safe perinatal outcome. In developed countries, up to 25% of all deliveries at term now involve induction of labour. (W.H.O, 2011) Induction is indicated before spontaneous onset of labour when the benefited to the mother or the fetus is perceived to outweigh continuation of pregnancy. In modern medical sciences, elective inductions for the convenience of either the obstetrician or the patient are on the rise.

Key words: Labour, Anagatapasava.

Introduction: Thousands of years ago in the cradle of civilization, the natural way for healthy life, Ayurvedic approach nurture mother and child through the journey of creation. Ayurveda sees children as a precious gift from the gods. After nine month of pregnancy the tears of pain transforming into tears of joy by process of labour. Ayurveda ideally promotes natural labour. With thousands of experts in India the processes natural childbirth, it remains common in village area but in cities the rate of intervention has risen alarmingly over the past decades. Many people advocates a return to Ayurveda after seeing the increase in complications due to the often unnecessary medical interventions including caesarean and episiotomy which have become standard practice in India.

Discussion : In Ayurveda, there is a lot of information regarding Prasava. Sushruta says that as a fruit getting detached from its stalk due to time factors come down naturally, similarly garbha on

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its appropriate time getting detached from its nadi-nibandhana (placenta) proceeds for labour due to its specific nature. Development of indifference by foetus from its intrauterine stay and attainment of full maturity of different body parts by foetus are the causes mentioned by Harita and Bhela respectively.

dkYkL; ifj.kkesu eqäa o`Urk|Fkk QYke~A Ái|rs LoÒkosu ukU;Fkk ifrraq /kzqoe~AA ,oa dkYkÁd""Z.k eqä"" ukM+hfucU/kukr~A xOkZ'k;LFk"" ;"" xO`Z tuuk; Ái|rsAA
(Su.Ni. 8/7-8)

So, these are five factors causes onset of labour-

1. Detachment of Nadi-nibandha (Placenta),
2. Swabhawa (Nature),
3. Garbha-vasa vairagya (Indifference of the foetus from its intrauterine life),
4. Garbha sampurnata (Full term pregnancy),
5. Kala-prakarsha (Time factor).

Intrauterine situation of the fetus during labour:At the onset of labour, the head of the foetus gets turned and comes forward due to action of Prasuti-maruta and then is expelled through vaginal passage; this is normalcy, other situations are abnormal. (Ch.Sh. 6/24).

Sushruta described head of foetus become towards the vagina by the nature. For this natural phenomenon deeds of previous life are held responsible according to Dalhana.

I ;ksfua f'kjk ;kfr LoHkkokr~ izloa izfrA (Su.Sh.5/45).

Indu says that foetus situated facing back of the mother, gets turned and then facing umbilicus and keeping head at the lowest is delivered. (A.S.Sh. 2/35 Indu commentary)

In normal situation of foetus, Charaka has described upward position of head, while others not specifying position of the head universally flexed attitude. Head usually attains downward situation in the last trimester of pregnancy, however in exceptional cases it does not rotate just prior to labour.

Clinical features after descent of labour:

I ;nk tkuh;kf}eqP; ân;eqnjeL;kLRokfo'kfr] ofLrf'kj`ox`g~.kkfr] Roj;UR;sukekO;%] ifjorZrs-/k` xOZ bfrAA (Ch.Ch. 8/39).

When foetus descent further or is going to be expelled it leaves the hridaya, enters or descends in lower abdomen, catches or stays at the region of neck of bladder and the frequency and duration of labour pains increases.

Failure in descent of foetus (Anagata prasava):In this situation there is need for induction of labour. Because there is risk of continuation of pregnancy either to the mother or to the foetus is more, so induction is indicated.

Management of Anagata prasava i.e induction of labour:

According to Ayurveda:

1. The woman should be asked to get up and holding a pestle or any other heavy thing strike the paddy filled in mortar, should yawn repeatedly and walk in between.

But Atreya contraindicated the above due to heavy exercise, only yawning and walking is beneficial. Inhalation of powdered kustha, ela, langali, vacha, chitraka, chirabilva and chavya or smoke of bhurjapatra or resin of simsipa should be given, in between massage with lukewarm oil over waist, flanks, back and thigh. By this process the fetus descends downwards. (Ch.Sha.8/38) Drugs prescribed by Charaka to bring down the foetus, probably stimulate the uterine musculature and improve the expulsive efforts. At present time we could understand that, these drugs have action on cervical ripening and intrauterine contraction.

2. Sushruta says that foetus having gone to opposite or wrong direction should bring to right direction.

Nowadays it is known as external version of foetus: External cephalic version is a procedure used to turn a foetus from a breech position or side-lying (transverse) position into a head-down (vertex) position after 35 weeks of pregnancy but before labour begins. When successful, version makes it possible for us to try a vaginal birth.

Version is done most often before labour begins, typically around 36 to 37 weeks. Version is sometimes used during labour before the amniotic sac has ruptured. This can be a good time to use version, when labour is constantly monitored and a caesarean delivery (C-section) can be done right away if needed.

3. Anuvasana basti with pungent oil should be given. (Bhela.Sh.8/8)

4. The female attendants should educate the woman “do not bear down in absence of labour pains, because it would be useless”.

5. Sushruta has advised pleasing massage of genitals in the direction of hair. (Su.Su. 10/9)

Now it could be understood as digital separation of chorio-amniotic membranes from the wall of cervix and lower uterine segment. It works by release of endogenous Prostaglandins from the membranes and deciduas.

6. Sushruta and Vagbhata have prescribed certain drugs for the treatment of garbhasanga without elaborating its clinical features.

Drugs to be used externally-

- (A) Fumigation or anoiment of vaginal canal-
- With slough of black snake or Pinditaka.
 - With oil of Tila inside the vaginal canal.

(B) Amulet of drugs or anointment over other parts of body-

- Roots of Hiranyapushpi should be tried over arms or legs or else, Survachala or Vishalya should be used.
- Roots of Ikshu or Tala grown on northern side knotted in a thread measuring to the length of the woman should be tied in wrist.
- Roots of Pratyakapushpi, Paribhadra or Kakajangha should be tied in waist.
- Anointment of Krishana and Vacha pestled with water and mixed with castor oil over umbilicus.
- Placement over labour ward –Skeleton of cow's head should be placed over labour ward.

7. Treatment with mantras –Water treated for seven consecutive times with recitation of “Chyavanmantra” should be given to women for drinking, after this she should be shown “Ubhayatrishanka” mantra. This belief is that one can connect with ancestors to involve their blessing and support for the child.

8. Oral medication – Use of powdered root of Matulunga and Madhuyasthi in equal quantity mixed with ghrita completes very comfortably. (Y.R stri roga Chi.101, B.P.Chi 70/110).

Conclusion: Garbhasanga (uterine inertia) describe by Sushruta is an abnormality of second stage of labour, however since Vagabhata has described garbhasanga after descend of foetus, thus it may be considered as the treatment during latter period of second stage. For optimum success of induction of labour with vaginal delivery, the selection of patient is most important depending on various factors like age, parity, B.M.I etc. The patient and relatives should properly counsel and informed about risk and benefits. When the patient is in the labour, there should be facility for proper intra-partum maternal and foetal monitoring to pick up the complications at the earliest if any. With proper selection and monitoring, induction of labour will be a boon in indicated cases.

References:

1. Astang Sangraha : Part I , Hindi Translation by Artridev Gupta, Krishna Das Academy, 2002, Page No.285-286.
2. Astanga Hridaya : Hindi Translation by Atridev Gupta, Chaukhambha Sanskrit Sansthan, 14th edition (2003), Page No.241.
3. Ayurvediya Prasuti Tantra and Stri Roga by Prof. (Km.) P.V. Tiwari, IInd Part 1992, Chaukhambha Orientalia, Varanasi, Page no.445-456.
4. Bhav Prakash Nighantu : Uttarkhand Hindi Commentary by Shree Brahma Shankar Mishra and Rupali ji Vaishyer 7th edition (2000) Chaukhambha Sanskrit Series, Page No.780-781.
5. Charak Samhita Part I Hindi Translation by Pandit Kashinath. Shastri and Dr. Gorakh Nath Chaurvedi, 1998, Page No.906,942-943.
6. Harita Samhita, Hindi Translation by Vaidya Jaimini Pandey 1st edition (2010), Chaukhambha Vishvabharati, Varanasi, Page No.537.
7. Sushruta Samhita, Hindi Translation by Dr. Ambika dutta Shastri 13 Edition, vol 1-2, Chaukhambha Orientalia, Varanasi, Page No.49 (Sh.), 262 (Ni).
8. Textbook of Gynecology D.C. Dutta, Edited by Hiralal Konal 4th edition, Page No.520-526.
9. Yoga Ratnakar : Hindi Commentary by Acharya Laxmipati Shastri Published by Chaukhambha Sankrit Series office, Varanasi 2nd edition 1973, Page No.825-826.

Menstrual Disorder: Its Dynamics and Management

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INTRODUCTION: Menstruation is a significant landmark in female's life. The age of menarche indicates the nutritional states of the girls as well as it is affected by socio, economic and environmental conditions. Menstruation disorders frequently affect the quality of life of youth and adult women and can be indicators of serious underlying problems. Among the reproductive health problems, menstrual irregularities are common in females. The symptoms of menstrual disorder like abnormal uterine bleeding may be a symptom of other reproductive and gynecologic morbidities. The aim of this study is to identify the irregular menstrual patterns with minor and major discomforts during menstruation.

The menstrual cycle is the monthly series of changes a female body goes through in preparation for possibility of pregnancy. The menstrual cycle which is counted from the first day of one period to the first day of next is of treated the same for every female. Menstrual flow might occur every 21 to 35 days and last 2 to 7 days. Long cycles are common during the beginning years of menstruation, later on menstruation cycle become normal. Many females have menstrual periods that last four to seven days and their period usually occurs every 28 days. Menstrual problems are :

- Periods that occur less than 21 days or more than 35 days apart
- Missing three or more periods in a row
- Menstrual flow that is much heavier or lighter than usual
- Periods that last longer than seven days
- Periods that are accompanied by pain, cramping, nausea, or vomiting
- Bleeding or spotting that happens between periods, after menopause

Irregular menstruation is a menstruation disorder whose manifestations include irregular cycle lengths. Irregular periods are an abnormal variation in duration of menstrual cycle in a female. A female generally experiences cycle length variations of up to eight days between the shortest and longest cycle lengths. Lengths ranging between eight and 20 days are considered moderately irregular. Variation of 21 days can be treated as irregular.

Causes of irregular menstruation:

PATHOLOGICALLY:

- a) Significant weight gain or loss
- b) Excessive Exercise
- c) Poor nutrition (or a diet too high in carbohydrates)
- d) Smoking, Caffeine
- e) Drug use
- f) Ecessive alcohol use
- g) Emotional stress
- h) Polycystic ovarian syndrome/estrogen dominance
- i) Uterine abnormalities (fibroids/cysts/polyps/endometriosis)
- j) Hormonal imbalances related to perimenopause
- k) Medicines such as birth control methods, causing lighter or more frequent, skipped periods or no periods.

- l) Chemotherapy
- m) Recent childbirth, miscarriage, or D & C
- n) Breastfeeding
- o) Pelvic inflammatory diseases

PHYSIOLOGICALLY

- a) Pregnancy
- b) Menopaus

Following are the irregular menstruation :

1. Precocious menstruation
2. Amenorrhoea
3. Cryptomenorrhoea
4. Oligo and Hypomenorrhoea
5. Menorrhagia
6. Polymenorrhoea and Polymenorrhagia
7. Dysfunctional Uterine Bleeding (DUB)
8. Metrorrhagia
9. Pre-menstrual tension
10. Mid Menstrual tension
11. Dysmenorrhoea
12. Post menopausal bleeding

Precocious menstruation :

Menstruation starts below 10 years of age is called Precocious menstruation.

Few reasons for precocious menstruation are – Midbrain, Pituitary Gland and Hypothalamus.

Amenorrhoea: Amenorrhœa, is the absence of a menstrual period in a female of reproductive age. Physiological states of amenorrhoea are seen, most commonly, during pregnancy and lactation. However, other causes of amenorrhea include problems with the reproductive organs or with the glands that help regulate hormone levels.

Hormonal imbalance:

Polycystic ovary syndrome is causes relatively high and sustained levels of hormones,

- **Thyroid malfunction** is causes due to overactive thyroid gland (hyperthyroidism) or underactive thyroid gland (hypothyroidism).
- **Pituitary tumor Noncancerous** (benign) tumor in pituitary gland can interfere with the hormonal regulation of menstruation.

TYPES OF AMENORRHOEA:

1. **Physiological amenorrhoea**
2. **Pathological amenorrhoea**
 1. **Physiological amenorrhoea**-It due to 1) pregnancy 2) Breast feeding 3) Menopause
 2. **Pathological Amenorrhoea further classified as**
 1. Primary Amenorrhoea
 2. Secondary Amenorrhoea

- **Primary amenorrhoea** is the absence of menstruation in a female from sixteen years of age. As pubertal changes precede the first period, female by the age of 14 who still have not reached menarche, plus having no sign of secondary sexual characteristics.

Causes for Primary Amenorrhoea :

1. Absent, Infantile or hypoplastic uterus
 2. Congenital absence of ovaries
 3. Intersexuality
 4. Chromosomal defects
 5. Hypopituitarism
 6. Hypothyroidism
- **Secondary amenorrhoea** – In secondary amenorrhoea female established menstruation has ceased for three months with a history of regular cyclic bleeding, or nine months in a female a history of irregular periods. This usually happens to female aged 40–55. Amenorrhoea may cause serious pain in the back near the pelvis and spine.

Causes for Secondary Amenorrhoea :

1. Mental diseases
2. Psychological
3. Sheehan`s syndrome
4. Hypo & hyperthyroidism
5. After radiotherapy
6. Hysterectomy
7. Pseudocyst
8. Excessive fat or gaining weight in short period.
9. Breast feeding.

Other Causes for amenorrhoea :

- Anti-psychotic drugs used to treat schizophrenia.
- Amenorrhoea can also be caused by physical deformities.
- Contraceptives that injected or implemented also may cause amenorrhea.
- Certain medications can cause menstrual periods to stop, including some types of:
Antipsychotics,
Cancer chemotherapy,
Antidepressants,
Blood pressure &
Allergy drugs.
- Problems with the reproductive organs themselves also can cause amenorrhea these are:
Uterine scarring Lack of reproductive organs Structural abnormality of the vagina

Symptoms:**Absence of menstrual periods.**

- i. Other symptoms are :
 - Milky nipple discharge
 - Hair loss
 - Headache
 - Vision changes
 - Excess facial hair
 - Pelvic pain
 - Acne

Treatments: It is based on the underlying condition. The main issues are problems of surgical correction if appropriate and oestrogen therapy if oestrogen levels are low. If the underlying cause of the amenorrhoea is not threatening female health and she does not think to have biological children, treatment may be unnecessary. In drug-induced amenorrhoea, medication may be stopped as per advice of doctor. SSRI therapy is a possible hormonal solution to just one hormonal condition of hypothalamic amenorrhoea.

Hypomenorrhea: It is known as short or scanty periods, is extremely light menstrual blood flow. In some women it may be normal to have less bleeding during menstrual periods. Less blood flow may be genetic and. It is also found that women's also have decreased blood flow during their periods. Pregnancy can normally occur with this type of decreased flow during the period. Reduced menstrual flow is a common side-effect of hormonal contraception methods.

Scanty menses or periods can occur normally at the extremes of the reproductive life. However, normal problems can also cause scanty blood flow. Anovulation due to a low thyroid hormone level, high levels of prolactin, insulin, other hormonal problems is also considered for causing the scanty periods.

Treatment: After having a significant causal abnormality is found no treatment other than reassurance is necessary. Otherwise, treatment is determined by the diagnosis.

Polymenorrhoea: Polymenorrhoea is a type of abnormal uterine bleeding. Polymenorrhoea occurs when the menstrual cycle is less than 21 days long. It is sometimes difficult to distinguish polymenorrhoea from metrorrhagia; however, bleeding that occurs at regular intervals less than 21 days apart is usually polymenorrhoea. Normal menstrual cycles are from 21 to 35 days long. Day 1 of the menstrual cycle occurs the first day you experience any amount of bleeding.

Menorrhagia: Menorrhagia is an abnormally heavy and prolonged menstrual period at irregular intervals. It may be associated with abnormally painful periods ((dysmenorrhea) Fibroids can cause menorrhagia.

Symptoms: A normal menstrual cycle is 21–35 days in duration, with bleeding lasting an average of 5 days and total blood flow between 25 and 80 mL. A blood loss of greater than 80 mL or lasting longer than 7 days constitutes menorrhagia. Menorrhagia also occurs at predictable and normal (usually about 28 days) intervals, distinguishing it from metrorrhagia, which occurs at irregular and more frequent intervals.

Causes

- i. Blood disorder or stress related disorder.
- ii. Periods soon after the onset of menstruation in girls and before menopause may in some women be particularly heavy.
- iii. Hormonal disorder
- iv. Fibroids in the wall of uterus.
- v. Irritation of the endometrium may result in increased blood flow.
- vi. Abnormalities of the endometrium like adenomyosis.
- vii. Endometrial Carcinoma causes due to irregular bleeding.

Treatment: After identifying the underlying treatment be directed. Clearly heavy periods at menarche and menopause may settle spontaneously. In anemia iron tablets may be used to help restore normal hemoglobin levels. The condition is often treated with hormones, particularly as D.U.B. commonly occurs in the early and late menstrual years when contraception is also sought. Oral combined contraceptive pills may be taken for a few months. If Fibroids do not respond to hormonal treatment, surgical removal will be required.

Anti-inflammatory medication like NSAIDs which is first line medications in ovulatory menorrhagia may be used.

Dysfunctional Uterine Bleeding (DUB): Dysfunctional uterine bleeding is abnormal genital tract bleeding based in the uterus and found in the absence of demonstrable organic pathology. It is also due to hormonal disturbances.

Dysfunctional Uterine Bleeding may be divided in two parts :

1. Ovulatory type
 - Menorrhagia
 - Poly or Epimenorrhoea and Polymenorrhagia
 - Premenstrual spotting
2. Anovulatory type
 - Metrorrhagia haemorrhagica

Treatment: Following surgery and medications are required :

- D & C
- Antianaemic treatment
- Hormonal therapy
- Hysterectomy
- Endometrial ablation
- Cycle progestin
- Radiation menopause

Dysmenorrhea : **Dysmenorrhea** is the medical term for the painful cramps that may occur immediately before or during the menstrual period. Symptoms typically last less than three days. The pain is usually in the pelvis or lower abdomen. Other symptoms may include back pain, diarrhea, or nausea. In young women painful periods often occur without an underlying problem. In older women it is more often due to underlying issues. It is more common among those with heavy periods irregular periods, whose periods started before twelve years of age, or who have a low body weight. There are two types of dysmenorrhea

Primary dysmenorrhea and Secondary dysmenorrhea

Primary dysmenorrhea is known for common menstrual cramps. Cramps usually begin one to two years after a woman starts getting her period. Pain usually is felt in the lower abdomen or back. They can be mild to severe. Common menstrual cramps often start shortly before or at the onset of the period and continue one to three days. They usually become less painful as a woman ages and may stop entirely after the woman has her first baby.

Secondary dysmenorrhea is pain caused by a disorder in the woman's reproductive organs. These cramps usually begin earlier in the menstrual cycle and last longer than common menstrual cramps.

Causes -The most common cause of secondary dysmenorrhea is endometriosis which can be visually confirmed by laparoscopy in approximately 70% of adolescents with dysmenorrhea.

Other causes of secondary dysmenorrhea include leiomyoma, adenomyosis, ovarian cysts and pelvic congestion.

Kinds & Symptoms

There are four kind of Dysmenorrhea :



The main symptom of dysmenorrhea is pain concentrated in the lower abdomen or pelvis. Symptoms often co-occurring with menstrual pain including nausea, diarrhea, vomiting headache, hypersensitivity to sound, light, smell and touch etc. . Symptoms of dysmenorrhea often begin immediately following ovulation and can last until the end of menstruation.

Treatment:Applying a heating pad to the Abdmn.

- Taking Vitamin B or magnesium may help.
- Surgery may be useful if certain underlying problems are present.
- Taking Non-steroidal anti-inflammatory drugs (NSAIDs) for relieving the pain of primary dysmenorrhea.
- People who are unable to take the more common NSAIDs due to its side effect may be prescribed a COX-2 inhibitor.
- Taking contraceptives including injectable hormone therapy or birth control pills, using varied or less common treatment regimens.
- Presacral neurectomy and ovarian sympathectomy surgery are also being done in some cases.

Epidemiology: Dysmenorrhea is estimated to affect approximately 25% of female. Reports of dysmenorrhea are greatest among individuals in their late teens and 20s, with reports usually declining with age. The prevalence in adolescent females has been reported to be 67.2% by one study and 90% by another. It has been stated that there is no significant difference in prevalence or incidence between races. Yet, a study of Hispanic adolescent females indicated a high prevalence and impact in this group. Among adolescent girls, dysmenorrhea is the leading cause of recurrent short-term school absence.

Conclusion: Menstruation is a condition which is associated with various emotional, religious, cultural aspects. Adolescence stage of life when the female body is undergoing extreme changes physically and emotionally wants special attention with special orientation to menstruation. Monthly absence, pre menstrual symptoms and lack of concentration causes many problems. Females needed proper attention particularly suffering from Dysmenorrhoea or other menstrual disorders to guide them towards health. Adolescent girls referring persistent oligomenorrhoea, in first two years from menarche, had a higher risk for developing a persistent menstrual irregularity. They have longer bleeding periods and this has practical implication because these adolescents potentially more susceptible to iron deficiency anemia. The menstrual disorders should be identified as early as possible to minimize the consequences and sequelae and to promote proper health information.

References:

1. "Amenorrhea, Primary : Medicine Obstetrics & Gynaecology" Archived from the original on 19 January 2010.
7. Loucks AB, Thuma JR (January 2003). "Luteinizing hormone pulsatility is disrupted at a threshold of energy availability in regularly menstruating women". *The Journal of Clinical Endocrinology and Metabolism*.
8. Osayande, AS; Mehulic, S (1 March 2014). "Diagnosis and initial management of dysmenorrhea."
9. Hacker, Neville F., J. George Moore, and Joseph C. Gambone. *Essentials of Obstetrics and Gynecology, 4th ed.* Elsevier Saunders, 2004. ISBN 0-7216-0179-0
10. Rosenwaks Z, Seegar-Jones G (October 1980). "Menstrual pain: its origin and pathogenesis". *J Reprod Med* **25** (4 Suppl): 207–12.
11. Harlow SD, Campbell OM, Epidemiology of menstrual disorders in developing countries : a systematic review, BJOG : an International Journal of Obstetrics and Gynecology, January 2004, Vol. 111.
12. A. Ahaw, Julia (2014-09-29) "Menorrhagia treatment and Management.
13. Menorrhagia – Menstrual Abnormalities and Abnormal Uterine Bleeding (www.health.am/gyncco/more/meorrhogia).
14. Newson, Louise "Amenorrhea" (www.patient.info/doctor/amenorrhea).
15. Harel Z (December 2006) "Dysmenorrhea in adolescents and young adults : etiology and management". *J.Pediatr Adolesc Gynecol*.



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Hindrances in Developing Ayurvedic Anaesthetic Drug

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Abstracts: Anesthesia is a well expanding branch of current science. Though we get very few references regarding this branch in *Ayurvedic* text, it was not totally unknown to our *Acharyas*. Developing this branch in terms of *Ayurvedic* medication and techniques is need of hour. There are many hindrances in doing so. But it is not impossible and research should be directed in proper way.

Key words: Anesthesia, potency, site of action, *Mada, Murcha, Sanyaasa*

Introduction: Ayurveda, the science of life, has been divided into eight branches of different specialty. Surgical branch of *Ayurveda*, known as *Shalyatantra*, is among those branches. We have plenty of references regarding various surgeries which were performed in the ancient period. Starting from *Vedic* period to the period of *Samhita* and later in medieval period also different surgeries were commonly performed.

Surgery in the *Vedic* period was progressed to great extent as different transplantation procedure like head transplant, testicular transplant etc. were performed in those days. It was known as *Madhu Vidya, Kaksha vidya* etc. In *Samhita* period also we get different surgical procedures like plastic surgery, perineal lithotomy etc. But what we don't get in all these texts is about the anesthesia. We have very little references for anesthesia in the text. Except for suggestion to take the food before procedure or advice of drinking liquor to those who are habituated to it, no other solid proof about the anesthetic methods are available in the *Sushruta Samhita*. It is interesting to know that majority of the surgical procedures were carried out by holding the patient tightly with the help of strong assistants and by tying the patient with the rope.

There is one question which pops up into mind whether *Ayurvedic* scholars were having the knowledge of anesthesia or whether it was really required to anesthetize the patient for the procedure. Many scholars explain that as it was war prone period and people in those days were having great pain tolerance and good control over all organs, probably it was not required to anesthetize the patient. But whether this is true or otherwise can not be proved objectively. But this much is certain that *Ayurvedic* scholars were having some knowledge about anesthesia. We get one reference in *Ramayana* where *Lakshmana* fell unconscious in the war field and was revived by one drug known as *Sanjivani*. There is also one reference in *Bhojatantra* where craniotomy was performed after making patient unconscious with the help of one drug known as *Moha churna*. But such drugs are not known now.

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Now a days people question about the existence of knowledge of anesthesia in *Ayurveda*. *Ayurvedic* scholars in the past have identified the different stages of unconsciousness like *Mada*, *Murcha*, *Sanyaasa* etc. but these all were termed as diseases. There are many drugs and procedures reported to revert these condition like *Sangyasthapana Gana* etc. But there is no reference for producing these stages of unconsciousness therapeutically for surgical purpose. The knowledge of anesthesia in *Ayurveda* was like knowledge of *Abhimanyu* i.e. the half part of the knowledge. They knew how to revive the patient but they did not know how to produce these stages therapeutically.

It is well known fact that the surgical branch started to lose its fame in later period simply because the pain tolerance capacity of the patients got reduced and the specialists failed to invent techniques of anesthetizing the patients. The story is not different for modern surgery even as it also flourished only after the major breakthrough which occurred in the field of anesthesia. Currently there are many drugs which can produce anesthesia. But even modern science has failed to produce an ideal anesthetic agent and procedure of anesthesia invariably involves one or the other danger unless it is practiced by a skilled person.

Now here lies the scope for *Ayurveda* to explore a safe and equally effective anesthetic agent. *Ayurvedic* drugs have given promising effect in pre and post operative medication but now it is required to invent such a drug which will be equally effective in producing anesthesia. Before that it is important to understand the mechanism of action of anesthetic drugs. There are various theories postulated to explain the mode of action of anesthetic drugs. We have to see whether any *Ayurvedic* drug is having the potential to act on the same principle or theory or can we make a drug that potent.

Site and mechanism of action of general anesthetic:

Anesthetic agents are capable of depressing all the functional elements of central nervous system but it is strongly postulated that anesthetics inhibit the ascending reticular activating system, which normally maintains a state of wakefulness. As there are varieties of drugs available, it is difficult to postulate a single theory common to all. It was believed that drugs produce narcosis due to long term biochemical changes but this theory was also ruled out by some drugs which produce anesthesia within few minutes and reversal is also rapid. It is also explained that due to the structural diversity of the various compounds, anesthetics do not act on single specific receptor.

Overton and Meyer pointed out that there is a close correlation between the potency of compound and its lipid solubility. This means when a specific numbers of anesthetic molecules occupy a crucial hydrophobic site in the central nervous system, anesthesia results in. Larger axons produce a relative resistance to anesthetic induced depression so the hydrophobic site of action is probably localized to synaptic regions or axons with a small diameter at the nerve terminal.

Therefore anesthetics probably act by blocking excitatory synaptic transmission. Some anesthetics act by prolonging synaptic inhibition. Both presynaptic and postsynaptic actions are likely. Until recently, it was believed that the general anesthetics act by interfering with lipid interactions in cell membrane but recent evidences indicate that the membrane proteins and not lipids are the primary targets of an anesthetic.

Hindrances in developing *Ayurvedic* anesthetic drug and possible solutions:

After looking into the different postulated theories of action of anesthetic drugs, we have to see whether any *Ayurvedic* drug can act the same way. But before that we have to find out what are the obstacles in developing such an *Ayurvedic* anesthetic drug.

- 1. Controversies regarding drug identification:** It is well known fact that drugs like *Sanjivani* etc. are not yet identified. It is also possible that it may be extinct or difficult to spot. Controversies regarding synonym, action etc. also add to the confusion. Therefore it is required to identify such drugs with thorough drug survey and research. Experts in the field of *Dravyaguna* and modern pharmacist need to work in this regard.
- 2. Proving the efficacy of known *Ayurvedic* anesthetic drugs:** Though we have the reference for the drugs which can revive the patient from different stages of unconsciousness but we have not proved their efficacy beyond doubt. We really have to see whether these drugs act on the same principle and theories as explained or they are having different mode of action. It is also essential to identify more drugs with similar action.
- 3. No standard drug preparation:** *Ayurvedic* drugs are largely prepared in tablet, powder or decoction form. We need to develop different standard preparation technique wherein only active ingredients of drugs can be isolated and if required synthetic production of such drugs should also be within reach of *Ayurvedic* scholar. People are looking at *Rasaushadhis* as possible answer to anesthesia but lot of research is required in this field. Help of scholars of *Rasashastra* and *Bhaishajya Kalpana* is required over here.
- 4. Potent drug administration technique:** It is well known fact that *Ayurvedic* drugs are not that effective in emergency situation due to their dependence on very few routes of administration. *Ayurvedic* drugs are not given parenterly. They are either administered orally or rectally. This makes *Ayurvedic* drugs absorb slowly hence there is delay in onset of action. We have the reference for *Kaakpadam* which seems to be a *parenteral* route of administration of drug but this is not explored properly. We know that anesthesia can be produced by inhalational route. So whether *Dhumapana* can help us? We need to answer this question. If we can find out a potent drug and suitable mode of administration then probably we would be able to produce anesthesia using *Ayurvedic* drug.
- 5. Lack of clinical research:** Anesthesia deals with the life and death of the patient, so nobody dares to do research in this area and ethically also it's not acceptable. For this we need to prepare standard drugs after identifying these drugs properly. Then we need to prove the efficacy of these drugs on the animals in properly designed trials. Once passed successfully through these test then we can conduct human trials to prove their efficacy.

Conclusion: So after going through the hindrances and possible solution to those obstacles, it is obvious that developing this somewhat unexplored branch of *Ayurveda* is not the sole responsibility of the people specialized in *Sangyahan* or *Shalyatantra* but it is the responsibility of all the branches of *Ayurveda* as well as modern pharmacy. Their contribution is of great importance for development of this branch.

Lipid solubility of the drugs has great relevance for the potency of anesthetic drugs. Hence research should be on drugs with higher lipid solubility. The action of ayurvedic drugs on sites like smaller diameter axons at nerve terminal as well as membrane proteins have to be analyzed.

Development in this field will directly affect the outcome of branches like surgery and gynecology etc. in turn it will affect whole *Ayurveda*. *Ayurvedic* anesthetic drug is a long perceived dream of many great *Ayurvedic* scholars. If we can cross those hindrances or obstacles effectively then probably we can make this dream come true.

References:

1. Acharya Sushruta, Sushruta Samhita, Chaukhamba Sanskrita Series, Varanasi, 1998.
2. Pande D. N. Sangyahan Prakash, Padmaja Prakashana, Varanasi, 1999.
3. Satoskar R.S, Bhandarkar S.D, Rege Nirmala, Pharmacology and Pharmacotherapeutics, Popular Prakashana, 2005.

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Historical Review of Agni Karma Therapy and Its Physiological Action

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Abstract: Exploring the historical background of Agni Karma we find that the Vedas have some literature about the Agni Karma. From this it becomes evident that the existence of Agni Karma was there in the society in pre Vedic period. Agnikarma is one among the Para surgical procedures which have been mentioned in Ayurvedic literature. It is used for treatment of different type of Joint pain like Krostrukashirsha, Parshanishoola, Katishoola (Lumbar Spondylosis) Grivagrah (Cervical Spondylosis), Vatik Vedana Sthanik, Sandhi Garh (Anchylosis) Sandhi Vata (Arthritis) also used in various type of disease like Leucoderma, Mashaka (Mole), Chippa (Whitlow). Padadari kadar Medaja Arbuda (Lipoma), Galganda (Thyroid Goitor), Vrana Vastu mansa utsedha (Keloid), Vridhi (Hernia), Vatik Arsha (Hard Pile Mass), Shilpada (Elephantiasis) in recent past year. The therapeutic application of thermal agents results in the transfer of heat to or from a patient's body and between the various component of tissues and fluids of the body. Any form of local body tissue heating will lead to physiological changes which is beneficial for cure the different type of diseases.

Key Word: Agni Karma, Krostrukashirsha, Parshanishoola, Katishoola, Vatik Arsha, therapeutic application and physiological changes.

Introduction: Agni Karma means application of Agni directly or indirectly with the help of various materials to relieve or cure the patient of disease. In the commentary of Sushruta Samhita by 'Dalhana', Agni Karma is described as-

- Agninaa krita karma - The karma or action carried out by Agni.
- Agni sambandhi karma- Karma or action related to Agni.

The specific character of both these statements is the presence of Agni.

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Synonyms of Agni Karma: i) Agni Chikitsa ii) Agni Karma iii) Agni Karya
iv) Dagdhakarm v) Dahan Karamvi) Dagdha Chikitsa vii) Dambha Kriya
viii) Pachana Kriya ix) Vahni Dagdha

VEDIC PERIOD: RIGVEDA:

In Rig-Veda application of Agni is indicated for the remedy of various gynecological and obstetrical diseases. Specific treatment by Agni and required materials was advised for the vaginal and uterine disease (10/162/1-4).

According to the verses of Rig-Veda the Agni is capable of destroying the invading parasites and demons in the vagina and uterus and thus save the fetus. This signifies the idea of the utilization of Agni Karma as a disinfectant.

Yajurveda: Yajurveda again emphasized the use of Agni as therapy for sheeta. It is indicated that Agni may be used in case of sheeta and sheeta induced disease. (23/10/01).

Application of Swedana Karma by hot cotton piece, sand, brick etc. was practiced in ancient period. It is a very scientific method, the approach behind it being hot objects emit infrared rays e.g. sunshine, coal or electric fire etc. They have a proven effect in pain management. Therefore materials mentioned in Yajurveda have the property of emitting infra-red rays.

Samaveda: Samaveda contains elaborate description about Agni which is clear by enumeration of a separate chapter as ‘Agneya Kanda’. In this Veda, Agni is given special names as Parmeshwara, Aatma and Vaishwanara etc. It is considered as the life existing in the creatures of the universe and which spreads/ propagates all over the area and therefore called Agni.

Atharvaveda: Atharvaveda has identified Agni as God and used it in treatment for diseases. From the verses it becomes clear that Agni was used to protect the body from the invading microorganisms. (5/23/1, 3,5).

Nowadays also the sterilization by heating process can be interpreted as the above idea of Atharva Veda. The cauterization of skin of affected area is also done in certain conditions and it is an effective treatment. All these methods of application of Agni as therapeutic measure, helping in medical practice are nothing but the ancient idea. It is also mentioned in Atharva Veda as ‘Rakshoha Agni’.

SAMHITA PERIOD :In Samhita kala it was believed that the equilibrium condition of Agni helps in the maintenance of Health, Bala, Varna, Ojas, Utsaha, Prabha and metabolism. It is also held that vitiation of Agni is Roga, destruction of Agni is death. Because of all these reasons Agni is considered as the base or root of creation.

Agni Karma in Charak Samhita: The basic idea of Agni Karma is clear. It is a treatment given by applying fire or heat over the skin. It is described in the context of application of Shashtra, Anushastra and Kshara in the Dwivraniya chapter of Charaka Samhita. As Charaka was basically a physician, few descriptions about Agni Karma are available in his treatise.

Some descriptions are as follows:

- | | |
|-----------------------------------|----------------------------------------|
| 1. Visha Chikitsa (Ch.Su. 28/26) | 2. Kaphaja Gulma (Ch.Chi. 5/61) |
| 3. Ardhaavabhedaka (Ch.Chi. 9/79) | 4. Gridhrasi Chikitsa (Ch.Chi. 28/100) |
| 5. Mansaja Roga (Ch.Chi. 28/26) | 6. Granthi Roga (Ch.Chi. 12/82) |
| 7. Bhagandara (Ch.Chi. 12/97) | 8. Sanyas (Ch.Chi. 24/46) |
| 9. Vrana (Ch.Chi. 25/101-1) | 10. Grantthi Visarpa (Ch.Chi. 21/132) |

Agni Karma in Sushruta Samhita:

Sushrut Samhita contains a practical systematic description about Agni Karma.

- (i) In the beginning while enumerating Yantras and Shastras, Agni Karma is described under the heading of Anushastra and Upayantra.
- (ii) Agni Karma is again mentioned while describing the importance of Shalya Tantra, in Yogya Prakarana.
- (iii) Agni Karma is included as one among Shasthi Upakrama of Vrana.

Following are some examples of the indication of Agni Karma for different diseases in Sushruta Samhita :

- | | |
|-----------------------------------|----------------------------------|
| 1. Shiro Roga (Su. Su. 12/9) | 2. Netra Roga (Su. Su. 12/9) |
| 3. Pakshma Kopa (Su. Su. 16/3) | 4. Adhimantha (Su. Su. 12/9) |
| 5. Lagana (Su. U. 14/5) | 6. Medaj Ostha (Su. Chi. 22/9) |
| 7. Adhidanta (Su. Su. 22/23) | 8. Krimidanta (Su. Su. 22/40) |
| 9. Arsha Roga (Su. Su. 6/3) | 10. Bhagandara (Su. Su. 8/23-27) |
| 11. Nadi Vrana (Su. Su. 12/10) | 12. Upadansha (Su. Su. 19/50) |
| 13. Antra Vriddhi (Su. Su. 12/10) | 14. Visuchika (Su. U. 56/12) |

Kshudra Roga:

- | | |
|---------------------------------------|------------------------------------------------------|
| 1. Chipa (Su. Chi. 20/10) | 2. Jatumani (Su. Chi. 20/32) |
| 3. Valmika (Su. Chi. 20/48) | 4. Kunakha (Su. Chi. 20/11) |
| 5. Medajagranth (Su. Chi. 18/17/18) | 6. Vata Vyadhi (Su. Chi. 12/10) |
| 7. Visha (Su. K. 5/5) | 8. Medajagalaganda (Su. Chi. 18/54) |
| 9. Kaphaja Arbuda (Su. Chi. 18/31-39) | 10. Shlipada (Su. Su. 12/10) |
| 11. Raktatipravriti (Su. Su. 12/10) | 12. Vrana (Su. Chi. 1/89, 7/35, 2/37, Su. Su. 12/10) |

Agni Karma in Sangraha Kala: In Sangraha period Astanga Sangraha and Astang Hridaya are the texts where Agni Karma is advised as a therapeutic measure for diseases in Kaya Chikitsa and Shalya Chikitsa.

Some examples are follows –

Roga	Astanga Sangraha	Astanga Hridaya
Shiro Roga	A.S.Su. 40/3 A.S.U. 28/7	A.H.Su. 30/41 A.H.U. 24/8
Paksmakopa	A.S.U. 12/12	-
Adhimantha	A.S.Su. 40/3	A.H.Su. 30/41
Linga nasha	A.S.Su.40/2	-
Medaja osthā roga	A.S.U. 26/7	-
Jalarbuda	A.S.U. 26/8	A.H.U. 22/10
Krimidanat	A.S.U. 26/16	A.H.U. 22/19-20
Danta nadi	A.S.U. 26/30	A.H.U. 22/40
Danta Vidradhi	A.S.U. 26/26	A.H.U. 22/34
Arsha Roga	A.S.Su. 40/3	A.H.Su. 30/42
Bhagandara	A.S.U. 24/35	A.H.Chi. 8/6-8
Charmarda, Tilkalaka	A.S.U. 37/17	A.H.U. 32/13
Galaganda	A.S.U. 26/50	-
Apachi	A.S.U. 35/19	A.H.U. 30/29
Granthi Roga	A.S.Su. 40/3	A.H.U. 30/17
Antravridhi	A.S.Chi. 15/18-19	-
Shleepada	-	A.H.U. 30/10

The commentators Chakrapani and Dalhana described Agni Karma and Agni in the period of Sangraha Kala. Likewise the Agni Karma was also mentioned as a therapy in Yoga Ratnakar, Sharangdadhara Samhita, Bhavaprakasha, Gadanigraha and Vangasena Samhita. They have mentioned the mode of application of Agni Karma with slightly different modalities.

Agni Karma in Mughal Period :Some facts about Agni Karma treatment in Mughal period were described by an Italian Author, *Nicolia Manchi* in his book “Mugal India”. Once a woman in palace became ill and did not get relief by any treatment. Then the patient was cauterized at umbilical region by a red hot iron ring, patient got relieved, her intestinal movements started and she became normal. By this it may be assumed that perhaps some form of Agni Karma has a role on abdominal colic or so.

This author has again described Agni Karma in the treatment of **Cholera**. *Sushruta* has also mentioned same type of Agni Karma in case of **Cholera** (Vishuchika). Su. U. 56/12.

Agni Karma in Present Era:The Agni Karma is also practiced by the modern physicians in some or other form. All these methods are included under the processes of cauterization. The practice of cautery is done by the obstetricians and surgeons frequently, to check bleeding. The obstetricians also use it in cervical erosion. The E.N.T. specialists use cautery for the cauterization of the nasal polyps.

Thus it can be concluded that in one or the other way Agni Karma procedure, as a treatment, has been practiced throughout the world since ancient time. However due to changes of the ruling systems, social pattern, religious changes, development of this Agni Karma treatment was also interrupted.

PHYSIOLOGICAL ACTION OF THERAPY:Local physiologic effect of heat includes increased tissue histamine and prostaglandin and bradykinin release that relax vascular smooth muscle and contribute to vasodilatation.

At a spinal level, due to afferent thermo receptor stimulation, decreased sympathetic tone results and further relaxes vascular muscle tone. Sufficiently warmed blood reaches the thermoregulatory hypothalamus and causes increased metabolism and perspiration.

At tissue level local heating results in increased tissue elasticity and decreased viscosity. To understand the effects of heating they can be categorized into two groups.

- 1) Direct
- 2) Indirect

DIRECT EFFECTS:

1. Effect on Vascular System :As a result of the increased metabolism, the output of waste products from the cells also increases. These include metabolites, which act on the walls of the capillaries and arterioles causing dilation of these vessels. This adds to the relaxed vascular tone as described above and result is vasodilatation, particularly in the superficial tissues where the heating is greatest. Stimulation of superficial nerve endings can also cause a reflect dilatation of the arterioles. As a result of the vasodilatation there is an increased flow of blood to the area. This causes enhanced delivery of nutrients and more efficient removal of waste products, hence hastening the natural process of repair.

After performing Dahan the superficial sensory nerves gets stimulated which leads to dilatation of local blood vessels, resulting in increased blood circulation. A part forms this it also decreases the viscosity of blood and thus leads to decreased blood pressure.

2. Effect on Metabolism: Any chemical change capable of being accelerated by heat is accelerated by rise in temperature "Vant Hoff's principle".Consequently heating of tissues accelerates the chemical changes i.e. Metabolism. This local effect is cumulative to general increase in metabolism produced as a result of stimulation of thermoregulatory hypothalamus. The increase in metabolism is greatest in the region where most heat is produced, which is in the superficial tissues. (Tissue temperature changes have been recorded up to depth of 1 to 2 cm after treatment with superficial heat. Superficial heat is purposed to effect deeper structure by conduction heat). As a result of the increased metabolism, there is an increased demand for oxygen and food stuff and an increased output of waste products, including metabolites.

3. Effect on Nervous System: Heat appears to produce definite sedative effects. The effect of heat on nerve conduction has still to be thoroughly investigated. There is evidence that any sensory excitation reaching the brain simultaneously with pain excitation results in the pain impulse being more or less attenuated (Sidney Lichit-1965). The effect can also be supported by stimulation of endogenous pain inhibiting mechanism and gate control theory of pain.

INDIRECT EFFECTS:

Effect on Musculoskeletal System : Rise in temperature induces muscle relaxation and increases the efficiency of muscle action as the increased blood supply ensures the optimum conditions for contraction.

Effect on Thermoregulatory System: As the blood passes through the tissue in which the rise of temperature has occurred, it becomes heated and carries the heat to other parts of the body, so that, if heating is extensive and prolonged a general rise in body temperature occurs. The vasomotor center (the heat regulating center is in hypothalamus) is affected and generalized dilatation of the superficial blood vessels results.

Effect on Glandular System: There is a reflex stimulation of sweat glands in the area exposed to the heat, which results from the effect of the heat on the sensory nerve endings. As the heated blood circulates throughout the body, it affects the center concerned with regulation of temperature and there is an increased activity of the sweat glands throughout the body. When generalized sweating occurs, an increased elimination of waste products takes place.

Effect on Cardiovascular System: If there is generalized vasodilatation, the peripheral resistance is reduced and this causes a fall in blood pressure. Heat reduces the viscosity of the blood and this also tends to reduce the blood pressure.


Effect on pain: Due to increased local metabolism, the waste products (metabolites) which are produced gets excreted, which normalize the blood circulation thus resulting in reduction in intensity of pain.

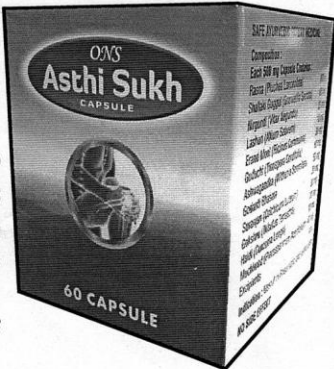
Effect of heat in Bacterial Infection: Inflammation is the normal response of the tissue to the presence of bacteria, the Principles features being vasodilatation, exudation of fluid into the tissue & Increases in the WBC & antibodies in the area. The response obtained on heating the tissues augments these changes & so Reinforces the body normal mechanism for dealing with the infecting organism.

References:-

- 1) *SusrutaSamhita Sutrashana by KavirajaambikaduttaShastri A.M.S. with "Ayurveda-Tattva-Sandipika" Hindi Commentary Part-I Edition Reprint (2007) Published by Chaukhambha Sanskrit Sansthan-Varanasi.*
- 2) *Sushruta. Acharaya Narayana Ram, Editor. Susruta Samhita Moolamaatra; Sootrasthana, Varanasi, by Chaukhambha Krishnadas Academy, 2009.*
- 3) *Agnivesha, Shastri Rajeshwardatta, editor. Charaka Samhita Uttrardh Commentary of Sastri Kasinatha, Chikitsa Sthana, Varanasi by Chaukhamba Bharati Academy, 2009.*
- 4) *Sushruta. Acharaya Yadavji Trikamji, Editor.Susruta Samhita with Nibandhasangraha Com of Dalhanacarya and Nyaya Candrika Panjika of Gayadas Acharaya on Nidanasthana;Uttaratantra, Varanasi, by Chaukhambha Orientalia, 2004*

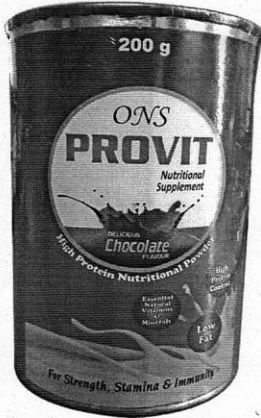
- 5) Vagbhatacharya. *Astanga Hridaya. Shastri kashinath. Varanasi, Choukambha Orientalia*, 1998
- 6) Agnivesha. Acharya Jadavji Trikamji, editor. *Charaka samhitha with Ayurveda Dipika commentary of Chakrapanidatta; Chikitsasthana, Varanasi, Chaukambha Prakashan, 2007*
- 7) Vagbhata, Sharma Shiv Prasad, Editor. *Astanga Sangraha with Shashilekha Commentary, Published by Chaukhamba Sanskrit Series Office, Varanasi. ISBN: 81-7080-186-9.*
- 8) Vagbhata, Harishastri Paradkar, Editor. *Astanga Hridayem with Commentaries of Arundatta and of Hemadri, Published by Chaukhamba Orientalia, Varanasi, Ninth Ed., 2005.*
- 9) Poman DK, *Critical Analysis of Agnikarma in Pain Management. M.S. (Ay.) Thesis. Varanasi, IMS, BHU, 2009.*
- 10) Agnivesha, Shastri Rajeshwardatta, editor. *Charaka Samhita Purvardh Commentary of Sastri Kasinatha, Chikitsa Sthana, Varanasi by Chaukhamba Bharati Academy, 2009,*
- 11) S. Bhatt. *Comparative study of indigenous compound (Nirgundi, Rasna and Parijat) with Agni Karma for management of Pain Ph.D Thesis, Varanasi, IMS, BHU, 2012.*
- 12) C. Guyton, M.D.†, *Text book of Physiology, Elsvier Saunders, edition 11, 2006, Philadelphia, U.S.A., chapter 73.*
- 13) Myrer JW, et al. *Cold- and hot-pack contrast therapy: subcutaneous and intramuscular temperature change. J Ath Train 199.*
- 14) Von Nieda K, Michlovitz SL. *Cryotherapy. In: Thermal Agents in Rehabilitation. Edited by Michlovitz SL. Philadelphia: FA Davis, 1996.*
- 15) Rennie FA, Michlovitz SL. *Biophysical principles of heating and superficial heating agents. In: Thermal Agents in Rehabilitation. Edited by Michlovitz SL. Philadelphia: FA Davis, 1996.*





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Role of Tarpan Therapy In Dry Eye Syndrome

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Abstract:In ayurvedic classics specially in sushrut samhita there are many such diseases on the basis of their signs and symptoms compared with dry eye diseases described in modern ophthalmology. there is not a single diseases entity which can be compare as dry eye but a Group of diseases or stages which are more or less similar to dry eye like shuktika, kaphavidagdha drishti, sushkakshipaka, avarna sukra, pothaki are described with their management in classics. dry eye syndrome is a common disorder of the tear film affecting a significant percentage of population specially those older than forty years of age. There is a great need to find out a drug or therapy which can be beneficial for the management of dry eye without any side effect. Local ocular tarpan therapy described by Acharya sushrut may be an effective therapy in dry eye syndrome.

KEY WORDS- Ayurvedic classics, tarpan therapy, dry eye syndrome.

Introduction: Dry eye per se is not a single entity but symptoms complex occurring as a sequel to deficiency or abnormalities of the tear film. In other way we can say that the dry eye as such a symptom complex is exit when the quality and quantity of the tear film is insufficient to ensure the well being of the ocular epithelial surface any abnormality to the various components of tear film as mucus, aqueous and lipid layer may lead to dryness of ocular surface. aqueous tear deficiency also known as keratoconjunctivitis sicca seen in paralytic hyposecretion, primary and secondary sjogrens syndrome, sympathetic hyposecretion. mucin deficiency dry eye occur when the goblet cells of conjunctiva are damaged in case of hypovitaminosis - A, conjunctival scarring diseases such as stevens Johnson syndromes, trachoma, chemical burn and ocular pemphigoid. outer lipid deficiency or abnormality is rarely seen, however it is quite common in chronic blepharitis and chronic meibomitis. Dry eye is also very frequent in case of impaired eye lid function as seen in patients with bells palsy, exposure keratitis, symblepharon, pterygium, lagophthalmose. There is no permanent cure of dry eye disease in modern ophthalmology only various preventive treatment modalities have been tried to give symptomatic relief in dry eye as artificial tears, ointments, slow release insert may be used .only temporary symptomatic relief can be obtained by these modalities. Today there is a great need of our ocular ayurvedic therapy which can be effective and used an alternative to modern therapy.

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Drug used In this clinical study of Tarpan therapy: The drugs used are mainly “Triphala ghrita “. Triphala is the main ingredient in the formation of grit. It is locally used in ocular disorder as Tarpan karma like in dryness, roughness, hardness, darkness before eye, Dirty eye, itching and burning sensation. The name Tarpan suggests anything which satisfied, regenerate are rejuvenates. With the help of these process body tissues grows and find strength and become strong. Eye sheds their weakness and gain better vision. This process is very effective in Dry eye disorders, probably it may improving the lacrimal glands secretions, regenerating the goblet cells of conjunctiva.

Materials and Methods: The present comparative study was conducted to know the role of Ayurvedic Terpana therapy in dry eye syndrome.

Assessment of mean changes in the grades of specified parameters of the dry eye due to Xerophthalmia, KCS and trachoma.

Comparison of overall mean changes between the patients on modern drug therapy (Control group To) & Ayurvedic tarpana therapy as (Treated group T1, T2 & T3).

METHODS: Total 78 patients out of 90 patients to be taken for clinical trial on the basis of three different group of diseases.

Section A - Xerophthalmia (hypovitaminosis). Section B - Keratoconjunctivitis sicca

Section C - Trachoma last stage.

In each groups comprises 26 patients. Each groups of patients will be again randomly divided into two sub groups, 13 patients in each group i.e. control group and treated group. Treated group of patients will be given tarpana therapy and control group of patients will be given treatment accordingly and comparative clinical study to be conducted.

OBSERVATIONS AND RESULTS:

CLINICAL PROFILE: Distribution of Patients based on incidence of presenting complaints.

TABLE-1 Feeling of Dryness

GROUPS		Feeling of Dryness (mean±SD)			
	Result	Before Treatment	After Treatment	First Follow up	Second Follow Up
Gr.A1	Mean ± SD	1.54 ± 0.97	0.38 ± 0.51	0.38 ± 0.51	0.54 ± 0.66
Gr.A2	Mean ± SD	1.38 ± 1.04	0.23 ± 0.44	0.31 ± 0.48	0.38 ± 0.51
A1 vs.A2	t-value	0.39	0.67	0.40	0.83
	p-value	>.05	>.05	>.05	>.05
Gr.B1	Mean ± SD	2.00 ± 0.82	0.38 ± 0.51	0.54 ± 0.52	0.85 ± 0.55
Gr.B2	Mean ± SD	1.54 ± 0.52	0.23 ± 0.44	0.23 ± 0.44	0.38 ± 0.51
B1 vs.B2	t-value	1.72	2.22	1.63	0.83
	P-value	>.05	<.05	>.05	>.05
Gr.C1	Mean ± SD	1.69 ± 0.63	0.31 ± 0.48	0.54 ± 0.52	0.77 ± 0.44
Gr.C2	Mean ± SD	1.77 ± 0.44	0.31 ± 0.48	0.38 ± 0.51	0.46 ± 0.52
C1 vs.C2	t-value	0.36	1.63	0.77	0.00
	p-value	>0.05	>0.05	>0.05	>0.05

GROUPS		Feeling of Dryness comparison within Gropus (Paired t-test)		
Subgroups	Results	B.T. Vs. A.T.	B.T. vs F1	B.T. Vs F2
Gr.A1	t-value	3.64	3.41	3.61
	P- value	0.003	0.005	0.004
Gr.A2	t-value	3.89	4.50	5.10
	p-value	0.002	0.001	0.000
Gr.B1	t-value	6.06	6.79	5.20
	p-value	0.000	0.000	0.000
Gr.B2	t-value	9.81	9.81	7.50
	p-value	0.000	0.000	0.000
Gr.C1	t-value	6.50	6.04	4.38
	p-value	0.000	0.000	0.001
Gr. C2	t-value	10.16	7.68	6.28
	P-value	0.000	0.000	0.000

The evident from the table -1 , that in subgroup A1 (control group) initially the mean and SD was 1.54 ± 0.97 , after treatment it become 0.38 ± 0.51 , in Ist and IInd follow-up the mean SD was 0.38 ± 0.66 . Above statistical data show that just after treatment there was a significant improvement in clinical symptoms. In 1st follow- up symptoms remains unchanged but in second follow-up there is increase severity of above clinical symptoms.

TABLE-2 F.B Sensation

GROUPS		F.B Sensation (mean \pm SD)			
Sub-groups	Result	Before Treatment	After Treatment	First Follow up	Second Follow Up
Gr.A1	Mean \pm SD	1.23 ± 0.73	0.23 ± 0.44	0.38 ± 0.51	0.54 ± 0.66
Gr.A2	Mean \pm SD	1.38 ± 1.04	0.31 ± 0.48	0.31 ± 0.48	0.38 ± 0.51
A1vs.A2	t-value	0.44	0.67	0.40	0.43
	p-value	>.05	>.05	>.05	>.05
Gr.B1	Mean \pm SD	1.62 ± 0.51	0.54 ± 0.52	0.46 ± 0.52	0.69 ± 0.48
Gr.B2	Mean \pm SD	1.54 ± 0.52	0.23 ± 0.44	0.31 ± 4.48	0.38 ± 0.51
B1 vs.B2	t-value	0.38	1.59	1.18	1.22
	P-vlue	>.05	<.05	>.05	>.05
Gr.C1	Mean \pm SD	1.77 ± 0.44	0.31 ± 0.48	0.38 ± 0.51	0.69 ± 0.48
GR.C2	Mean \pm SD	1.69 ± 048	0.31 ± 0.48	0.38 ± 0.51	0.46 ± 0.52
C1 vs.C2	t-value	0.43	1.18	0.00	0.00
	p-value	>0.05	>0.05	>0.05	>0.05

GROUPS		F.B. Sensation Comparison Gropus (Paired t-test)		
Subgroups	Results	B.T. Vs. A.T.	B.T. vs F1	B.T. Vs F2
Gr.A1	t-value	5.10	3.81	3.32
	P- value	0.000	0.002	0.006
Gr.A2	t-value	4.07	4.50	5.10
	p-value	0.002	0.001	0.000
Gr.B1	t-value	6.04	6.06	6.74
	p-value	0.000	0.000	0.000
Gr.B2	t-value	9.81	10.12	11.08
	p-value	0.000	0.000	0.000
Gr.C1	t-value	7.798	7.68	5.11
	p-value	0.000	0.000	0.000
Gr. C2	t-value	7.68	7.48	7.41
	P-value	0.000	0.000	0.000

The evident from the table -2 shows comparison of F.B. sensation in sub group A1. Before the treatment, after the treatment and two follow up of 15 days interval. Initially mean and S.D. of F.B Sensation was 1.23 ± 0.73 , after treatment it become 0.23 ± 0.44 , it show the symptoms reduced after treatment in fist follow up the mean and S.D. was 0.38 ± 0.51 . There is slightly increase after second follow up the mean and S.D. becomes 0.54 ± 0.66 that is in second follow up severity of symptoms increased.

Summary and Conclusion: Dry eye as such as is a symptoms complex occurring as a result of deficiency of abnormality of the tear film. Dry eye syndrome is a common disorder of the tear film, affecting a significant percentage of populations. Dry eyes syndrome affects any race and is more common in women than in men. Dry eye is now becoming leading cause of ocular discomfort affecting millions of peoples and drawing attention of ophthalmologists. Any abnormality to the various components of the tear film as mucus layer, aqueous layers and lipid layer may lead to dryness of ocular epithelial surface. The main object of dry eye therapy is to preservation of already existing tears or reduction of normal tear drainage or both. Once dry eye syndrome developed it can be prevented, only its effects may be reduced with the help of medicine, surgery and self care suggestions only. Temporary symptomatic relief can be obtained these modalities of modern treatment. There is a great need to find out a drug/therapy which can be effective and beneficial for the management of eye disease without any side effect. Tarpana therapy may be used in case of dryness, hardness, and roughness, darkness before eye, itching and burning sensation in the eye.

References:

तद्यथ-शल्यं, शालाक्यं, कायचिकित्सा, भूतविद्या कौमारभृत्यम्, अगदतन्त्रं, रसायन तन्त्रं बाजीकरण तन्त्रमिति ।।

—सु0सू0 1/6

1. शालाक्यं नामोर्ध्वजन्तुगतानां रोगाणां श्रावण नयनवदन घ्राणादिसंश्रितानां । व्याधीनां उपशमनार्थं शलाका यंत्र प्रणिधानार्थं च ।” —सु0सू0 1/10
 2. शलाका, तस्याः कर्म, तत्प्रधानां तन्त्रं शालाक्यं, शलाक्या यत्कर्म क्रियते तत्शालाक्यम् । नि0स
 3. तस्मां अधी नासतया विद्या आधत्तं दस्त्रा भिषजानवनर्धता । —सु0सू0
 4. युवां कण्वादा परिप्ताया चक्षुं प्रत्यधत्त सुष्टीवं जुजुवाया । —सु0सू0
 - 5- शालक्य तन्त्रभिहिता विदेहा
 6. ध्यापकीर्तिता।ये च विस्तरतो दृष्टाः कुमाराबाधहेतवः।। —सु0उ0 1/5
 7. “तर्पणं पुटपाकञ्च सेक आख्योतनाञ्जने । तत्र तत्रोपदिष्टानि तेषां व्यासं निबोध मे।।” —सु0उ018/4
- Antigenic specific of human antibody to chalamdia in Trachoma and lymphogranuloma venerum, Jour Gen. Micro 132(6), Arrachart Duke elder system of ophthalmology, Vol. IX(1969)
Abhinawaa Netra Chikitsa Vigyana: Ist Ed., By Dr. M.N Dwivedi.
Arnold Sorsby: Modern ophthalmology, Vol. I,II,III and IV, IInd Edition

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Singhnad Guggulu- Ingredients & Effect especially in joint Pain (Sandhi Shool)

*Dr Vijay kumar

**Dr P. K. Bharti

***Prof. D. N.Pande

Abstract: Singhnad Guggulu is a poly herbal ayurvedic medicine which is used for treating chronic Rheumatoid arthritis, Gout, Skin diseases, Digestive disorders etc. According to Ayurveda Ama (Toxin produced in body due to undigested food or poor digestion) and Kapha causes Amavata. Singhnad Guggulu contains medicinal herbs which improves digestion and reduce production of Kapha. Triphala helps to improve digestive system and helps in elimination of toxins. Hence it give relief in inflammation and pain.

Key Words- Ama , Kapha , Amavat, Vatvyadhi , Virechanopag, Kustha , PsoraMiasm.

Itroduction-Singhnad Guggulu was first described by Chakrapani in a book named Chakradatt for treating Amavat especially.It also useful in Swash roga, Kashroga, Gulma , Shula and all type of Udarrogas .

Ingredients of Singhnad Guggulu & preparation of it must be done according to textbook- Chakradatta to obtain maximum efficacy.

vkeokrat;snfioS\fooftZre~A ,rnH;kl ;ksxsutjkifyr uk'kue~AA¼1½

Ingredients—according to modern parameter-

Amla 50 gm

Haritaki 50 gm

Vibhitaki 50 gm

SuddhaGandhak 50 gm

SuddhaGuggulu50 gm

Castor oil 200 ml

Description –Each ingredients of Singhnadguggulu have their own medicinal property and by combining each other give great effect in relieving pain & removing toxins from body.

Not only in Ayurveda but even some other pathy like Homeopathy also describe same indication of sameingredients.

Description of ingredients is as follow—

1-Amalaki (*Euphorbia officinalis*)

Synonyms- Dhatri

to ArcharyaSusruta—

foHkhrdksendj% dQek:r uk'ku%AA¼3½

3- Haritaki- (*Terminaliachebula*)

Synonyms- Abhaya ,Pathya

Group-Jywraghna, kusthaghna, Kashhar

According Acharya Charak – **Group-**Antiaging&Virechanopag

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According to modern view it is best source of vit C . Vit C is required for collagen formation therefore it is helpful in wound healing & to minimize the inflammation of tissues .It also help in bleeding condition .Vit- C work as antioxidant to promote antiaging of body.

According to Acharya Charak –
vkeydh o;%LFkkiukukeA¼2½

2- Vibhitaki (*Terminaliabelirica*)

Synonyms—Karshphal ,AkshyaKalidrum.

Group- Jywraghna, Virechanopag.

According हरीतकी पथ्यानाम।।(4)

4—SuddhaGandhak (Sulphur)-गन्धाश्मतिरसायनः सुमधुरः पाकेकदूष्णोमतः।

कण्डूकुष्ठविसर्पददुदलनोदीप्तानलः पाचनः।

आमोन्मोचनशोषणोविषहरः सूतेन्द्रवीर्यप्रदः।

गौरीपुष्पामवस्तथाकृमिहरः सत्वात्मकः सूतजित्।। (5)

Sulphur is best used in many skin diseases like leprosy, eczema, fever ,cough, loss of strength.It is also proved by some other pathy . According Homeopathy all chronic diseases of human occur due to SoraMiasm of body. SoraMiasm means itching or skin diseases. When skin diseases masked by fast acting Allopathy then they subside in body and originate many complication of chronic nature like Hysrerria , Depression, Gout, Asthma. In Homeopathy sulphur is antipsoric. It is used in trembling of hand, Rheumatic pain in left shoulder, Rheumatic gout with itching burning in sole & feet at night and stiffness of knee & ankle.

5- Castor oil (*Ricinus communis*)

Synonyms –Erant ,Gandharvahast, Panchagul, vardhaman.

Group-Adhobhaghar ,SwedopagAngmardprasaman.

It is anti inflammatory & having analgesic properties.It is well known purgative and removestoxins from body.According Acharya Charak ---.j.Mewya o`";okrgjk.kke**AA ¼6½

6-Guggulu (*Commiphora mukul*): Guggulu is oleogum resin from a small tree, grows in Himalaya of north western India. It has anti-inflammatory and lipid lowering properties It also helps remove fat, excess fluids and Ama from the body and penetrates deep into tissues.

Dose- 2-3 masa (2-3 gm)

Summary: Singhnad Guggulu is used to address Rheumatic condition . According to Ayurveda Ama is undigested & unmetabolised toxin which accumulate in body and inflammatory reactions and pain occur in response. Singhnad Guggulu is a combination of potent cleaning ingredients of Castor oil &Triphala which remove toxin from the joints and blood. Anti inflammatory guggulu work to calm and soothe painfuland inflamed joints. This formula of medicine serves to rejuvenate the body and improve digestion .thus minimizing further production of toxin & Rheumatic symptom.

Conclusion: On the basis of the Textual references and previous researchs Singhnad Guggulu is effective polyherbal drug in many joint pain especially in Aamvat (Rheumatoid arthritis).

-It is also effective in differentskin diseases like Psoriasis , Eczema,VatvyadhiKash , and Swash.

-It primarily reduces pitta & Vatadoshas.

-Its is effective due to synergistic effect of its ingredients.

References—

1. चक्रदत्त, 25/34
2. चरकसूत्र, 25/40
3. सुश्रूत, 46/205
4. चरकसूत्र, 25/40 र0र0स0, 3/16
5. आयुर्वेदीरस शास्त्र,
6. चन्द्रभूषणझा चरकसूत्र, 25/40
7. MateriaMedica& Repertory pg. 622 by W.Boerick's

Cancer and Its Psychosomatic Ill Effects - A Vision In Ayurveda*** Morey Shriram T. ** Jaiswal R.K. *** Pandey K. K.**

ABSTRACT: Psycho physiologic Disorder is a condition in which psychological stresses adversely affect physiological (somatic) functioning to the point of distress. It is a condition of dysfunction or structural damage in bodily organs through inappropriate activation of the involuntary nervous system and the glands of internal secretion. Thus, the psychosomatic symptom emerges as a physiological concomitant of an emotional state. In a state of rage, for example, the angry person's blood pressure is likely to be elevated and his pulse and respiratory rate also to be increased. When the anger passes, the heightened physiologic processes usually subside. If the person has a persistent inhibited aggression (chronic rage), however, which he is unable to express overtly, the emotional state remains unchanged, though unexpressed in the over behavior, and the physiological symptoms associated with the angry state persist. With time, such a person becomes aware of the physiological dysfunction.

Key Words: Psychosomatic, Cancer, Palliative care, Meditation, immunomodulation

Introduction: Cancer is one of the most death causing disease of the 20th century and spreading further with continuance and increasing incidence in 21st century. In the United States, as the leading cause of death, it accounts for 25% of all the deaths in humans presently. Cancer is one of the leading causes of death in the US and around the world. Several chemotherapeutic, cytotoxic and immunomodulating agents are available in Western medicine to treat cancer. Besides being enormously expensive, these drugs are associated with serious side effects and morbidity. Still, the search continues for an ideal treatment that has minimal side effects and is cost-effective. Today, in Western medicine, only a limited number of plant products are being used to treat cancer. However, some of the widely used anticancer drugs, such as taxol and vinca alkaloids, are obtained from medicinal plants. This review focuses on the ancient perspective of cancer. It is considered as an adversary of modernization and advanced pattern of sociocultural life dominated by Western medicine. Multidisciplinary scientific investigations are making best efforts to combat this disease, but the sure-shot, perfect cure is yet to be brought into world medicine. Recently, a greater emphasis has been given towards the researches on complementary and alternative medicine that deals with cancer management. Several studies have been conducted on herbs under a multitude of ethno botanical grounds. Ayurveda, a traditional Indian medicine of plant drugs has been successful from very early times in using these natural drugs and preventing or suppressing various tumors using various lines of treatment.

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The broad aim of this article is to provide a general out-line on descriptions of cancers and their management from an ayurvedic practitioners' perspective underlying its scientific principles involved in treating these conditions with the use of natural products and to improve quality of life. It is written with an intention to raise awareness and encourage implementation of ayurvedic therapies and palliative care for combating cancer and suggesting an integrated approach in tumor management and treatment.

Concept of Cancer in Ayurvedic: Charaka and Sushruta samhitas, two well-known Ayurvedic classics, describe cancer as inflammatory or non-inflammatory swelling and mention them as either Granthi (minor neoplasm) or Arbuda (major neoplasm). Ayurvedic literature defines three body-control systems, viz., the nervous system (Vata or air), the venous system (Pitta or fire) and the arterial system (Kapha or water) which mutually coordinate to perform the normal function of the body. In benign neoplasm (Vataja, Pittaja or Kaphaja) one or two of the three bodily systems are out of control and is not too harmful because the body is still trying to coordinate among these systems. Malignant tumours (Tri-dosaja) are very harmful because all the three major bodily.

Fundamental classification: Ayurvedic classification of neoplasm depends on various clinical symptoms in relation to Tridoshas.

Group I: Diseases that can be named as clear malignancy, which includes arbuda and granthi, e.g. mamsarbuda (melanoma) and raktarbuda (leukaemia), mukharbuda (oral cancer), etc.

Group II: Diseases that can be considered as cancer, such as incurable ulcers with e.g. tridosaj gulmas (ab- dominal tumours like carcinomas of the stomach and liver or lymphomas).

Group III: Diseases with the possibility of malignancy, e.g. Visarpa (erysipelas), asadhya kamala (incurable jaundice) and nadi vrana (sinusitis) [13,14].

Etiology of cancer according to Ayurveda:

According to Sushruta, the fundamental cause of major neoplasm is the pathogens that affect all parts of the body. He called the sixth layer of the skin as 'Rohini,' (epithelium) and pathogenic injuries to this layer in muscular tissues and blood vessels caused by lifestyle errors, unhealthy foods, poor hygiene and bad habits results in the derangement of doshas, which leads to the manifestation of tumours. Excess of water or fat in the corpus of the tumour and the stability and rigid confinement of the doshas in a particular place were described as reasons for the non-infectious and non-suppurative nature of these abnormal growths. Cancer in each person differs according to the person's exposure to pathogens and genetic constitutions which make each of them to react differently to the same diet. The factors responsible for the vitiation of doshas are discussed here-

a. Vata aggravating factors: excessive intake of bitter, pungent, astringent, dry foods and stressful conditions.

b. Pitta aggravating factors: excessive intake of sour, salty, fried foods and excessive anger.

c. Kapha aggravating factors: excessive intake of sweet, oily food and sedentary nature.

d. Rakta aggravating factors: excessive intake of acid or alkali containing foods. Fried and roasted foods, alcoholic beverages, sour fruits are some examples. Excessive anger or severe emotional upset, sunbathing or working under scorching sun or near fire and hot conditions, etc. are some other causes.

e. Mamsa aggravating factors: excessive use of exudative foods like meat, fish, yoghurt, milk and cream. Be- haviours leading to exudation like sleeping during the day and overeating are some of the causes for pathogens invading the fatty tissues.

f. Medo aggravating factors: excessive intake of oily foods, sweets, alcohol and lazy attitude.

Pathogenesis of Tumours: According to Ayurvedic principles, the disease cannot be named on its own because it differs between persons in terms of illness, clinical presentation and also the treatment required. Thus, pathogenesis in Ayurveda is explained on the basis of Tridoshas. Agni or Pitta, which is present in each and every cell, is responsible for digestion and metabolism in human body. The decrease in agni is inversely proportional to the related tissue and therefore in arbuda, the decreased state of dhatwagni (deranged metabolism) will result in excessive tissue growth. Vata can be correlated with the anabolic phase of growth whereas kapha to the catabolic phase. Cancer originates due to a metabolic crisis, i.e. aggravation of vata forces and suppression of kapha forces, both interacting with one another resulting in proliferation. However, the abnormal cancerous growth at a specific organ (Ekadesavridhi) is managed by compensation from other parts of the body (Anyasthaniyak- shaya), e.g. body weight loss (cachexia) .Sushruta has proposed six stages in the pathogenesis of all diseases but his concept suits more to the pathology of the tumour than pathogenesis itself.

Sanchaya: early stages of localized neoplastic changes. **2. Prakopa:** transformation of primary growths into metastatic tumours. **3. Prasara:** metastasis. **4. Sthana samsraya:** complete metastasis and secondary growth. **5. Vyakti:** clinical signs and symptoms are expressed.

An alternative solution to western medicine embodied with severe side effects is the use of medicinal plant preparations to arrest the insidious nature of the disease. As we use *Amalaki rasayana* with *Yastimadhu churna* and *Amritabhallataka Rasayan* as an adjuvant to Radiotherapy in Head and Neck carcinoma patients.

Many herbs have been evaluated in clinical studies and are currently being investigated phytochemically to understand their tumouricidal actions against various cancers. Thus, cancer patients who already got crippled with this disease, further burdened by drug-induced toxic side effects have now turned to seek help from the complementary and alternative medicine hoping for a better cure. Ayurvedic therapy was found to be able to cure these chronic diseases better, which were previously not amenable to treatment by western medical practices. This traditional Indian medicine with its evolution through centuries has always fascinated practitioners and researchers for its applications

Principles of Ayurvedic Treatment: Abuse of nature's law upsets the human system and ends up in disease like cancer. It is again the nature, the foremost physician who brings the cure. The Ayurvedic system of medicine was well founded on the basic principles of nature and its elements after a careful and thorough study of human physiology. This is the first system to emphasize health as the perfect state of physical, psychological, social and spiritual component of a human being. The therapeutic approach of Ayurveda has been divided into four categories as Prakritisthapani chikitsa (health maintenance), Roganashani chikitsa (disease cure), Rasayana chikitsa (restoration of normal function) and Naishtiki chikitsa (spiritual approach). Finding the cause of an illness is the basic goal of ayurvedic therapy. It classifies disease development into six stages that include aggravation, accumulation, overflow, relocation, build-up in a new location, and manifestation into a recognizable disease. Ayurvedic physicians can diagnose an

illness at even initial stages of body imbalance and their therapeutic approach maintains a balance by supplying deficient substances as well as reducing the excessive ones. Surgery is considered only for advanced cases.

Cancer is a hyper proliferative disorder that involves transformation, dys regulation of apoptosis, proliferation, invasion, angiogenesis and metastasis.

Extensive research during the last 30 years has revealed much about the biology of cancer. Drugs used to treat most cancers are those that can block cell signalling, including growth factor signalling (e.g., epidermal growth factor); prostaglandin production (e.g., COX-2); inflammation (e.g., inflammatory cytokines: NF-B, TNF, IL-1, IL-6, chemokines); drug resistance gene products (e.g., multi-drug resistance); cell cycle proteins (e.g., cyclin D1 and cyclin E); angiogenesis (e.g., vascular endothelial growth factor); invasion (e.g., matrix metalloproteinase); antiapoptosis (e.g., bcl-2, bcl-XL, XIAP, survivin, FLIP); and cellular proliferation (e.g., c-myc, AP-1, growth factors).

References of Cancer Treatment in Ayurvedic Texts : During the 7th century BC, Atreya and Dhanwantari used herbal medicines for treating the early stages of cancer and surgery in advanced cases. In the 8th century AD, Vagb- hata, a Buddhist physician composed two texts: Astanga Hr- daya [19] and Astanga sangraha [20] where new methods for cancer treatment were introduced. Other Ayurvedic texts of internal medicine, viz., Chakradatta [21] composed by Chakrapani (10th century AD), the Sarangadhara Samhita [22] by Sarangadhara (14th century AD), the Bhavaprakasha Samhita [23] by Bhavamisra (15th century AD), the Sat- mya Darpan Samhita by Viswanath (16th century AD), the Vaisajya Ratnabali by Binoda Lala Sen Gupta (18th Century AD), the Rasatarangini by Sadananda Sharma (19th century AD), etc. explain numerous remedies to treat internal and external neoplasms.

Treatment Modalities: Sodhana Chikitsa (purification process), which eliminates vitiated doshas, have been primarily used for medical management of cancer. When both internal and external medications were given then it is called as panchakarma chikitsa. The other type of curative therapy is called somana chikitsa, which pacifies dosha and gradually relieves the disease. However, this treatment is prescribed only to weaker patients for whom sodana chikitsa is contraindicated.

Rasayana Prayoga (immunotherapy), certain poisonous plants, mercury like metals and animal products were rendered non-toxic and harmless by the use of alchemy and are used as rejuvenating drugs. Other methods of treatment include, dhatwagni chikitsa (correction of metabolic defects), vyadhipratyanika chikitsa (specific anti-cancerous drugs) and lakshanika chikitsa (symptomatic treatment) [24]. When medical treatment practices fail, then the case was left to surgeons.

Surgical Cancer Management in Ayurveda include the principles of fomentation by means of external application, cleansing by internal medication, treatment to liquefy the contents of the swelling, opening the tumor surgically for evacuation of its contents, cauterization to avoid recurrence and post-operative care for healing the wound [15]. Cauterization with alkalis and acids and other surgical procedures were performed with herbal and mineral medicines. Arbuda is excised completely from its deep root seat and cauterization done to destroy any of the remaining cell particles [24].

Classical Drugs Claimed in Ayurvedic Texts-

Scientific Principles of Ayurvedic anticancer drugs: Herbal decoctions consisting of multiple herbs each possessing tremendous potential for a cancer cure are commonly used in Ayurveda. These formulations are reported to work on multiple biochemical pathways and are capable of influencing several organ systems simultaneously. The benefit of an herbal decoction is that it can nourish the body as a whole by supporting various organ systems [25]. Many of the herbs mentioned below have scientifically-proven anti-cancerous properties and are used for the treatment of various cancers.

Tumour subtypes & Classical treatment procedures-

Granthi –

Vatika Granthi : *Helloborus niger*, *Tinospora cordifolia*, *Clerodendron serratum*, *Aegle marmelos*, *Hoya viridiflora*, *Elephantopus scaber*, *Soymida febrifuga* and *Gynandropis pentaphyllawere* applied locally [16]

Paittika Granthi *Terminalia chebula* powder with either grape or sugarcane juice were used orally. The paste of *Glycyrrhiza glabra*, *Eugenia jambolana*, *Terminalia arjuna* or *Calamus rotang* were used of external application [16]

Kapaja Granthi Paste of *Capparis spinosa*, *Capparis sepiaria*, *Agati grandiflora*, *Lagenaria vulgaris*, *Premna herbacea*, *Pongamia glabra*, *Musa sapientum* and *Randia dumetorum* used in local application [16]

Arbuda Classical Procedures Fomentations, cauterisation, scraping, blood letting, medicated enemata and other surgical procedures [17] Traditional treatment Habitual intake of *Basella rubra* or application of alkali preparation of *Musa paradisiaca*, Conch shell ash, *Elaeocarpus tuberculatus*, Sulphur, Potassium carbonate, *Embelia ribes* and ginger were used to cure arbuda

Vataja arbuda Paste of *Benincasa cerifera*, *Cucumis memordica*, *Cocos nucifera*, and *Eranda beeja*, *Ricinus communis* along with butter or milk were applied [65]

Pittaja arbuda Tumours were treated with leaves of *Ficus glomerata*, *Tectona grandis*, and *Elephantopus scaber* repeatedly and then with a honey mixed fine paste of *Aglaja roxburghiana*, *Caesalpinia sappo*, *Symplocos racemosa*, *Terminalia arjuna*, *Xanthium strumarium* was applied.

Kaphaja arbuda After surgical removal of tumour, a drug that remove doshas from both the ends (vomiting and purgation) were employed. Then for purification, a decoction of *Clitoria ternatea*, *Jasminum grandiflorum* and *Nerium odorum* leaves was used. For the postoperative care, oil cooked with *Premna herbacea*, *Embelia ribes*, *Cissampelos pareira* was applied.

Medoja arbuda *Curcuma domestica*, *Triticum sativum*, *Symplocos racemosa*, etc. were made into a powder and applied externally by mixing them with honey. Oil from *Pongamia glabra* was used of internal administration.

Psychological distress is common among people affected by cancer and is an understandable response to a traumatic and threatening experience. Patients draw on their own inner resources to help them to cope and many derive emotional support from family and friends. Some patients, however, are likely to benefit from additional professional intervention because of the level and nature of their distress. In practice, psychological symptoms are often not identified and patients lack sufficient access to psychological support services. Cancer and its treatment can have a major impact on a patient's ability to carry on with his or her usual daily routines. Activities most people take for granted, such as moving, speaking, eating, drinking and

engaging in sexual activity, can be severely impaired. Cancer rehabilitation aims to maximize physical function, promote independence and help people adapt to their condition. A range of allied health professionals and other professionals provide rehabilitation services and, through developing self-management skills, patients can take an active role in adjusting to life with and after cancer. Some patients are not getting access to rehabilitation services, either because their needs are unrecognized by front-line staff or because of a lack of allied health professionals who are adequately trained in the care of patients with cancer.

Patients with advanced and terminal cancer often experience emotional distress and psychiatric disorders, which can adversely affect quality of life. In a review paper published online September 10 in *Cancer*; researchers discuss the important role that oncologists can play in screening for these conditions, as well as in helping to reduce psychological distress by effective communication, providing support and first-line treatment, and making appropriate referrals.

Even though data show that emotional distress and psychiatric disorders are common among advanced cancer patients, oncologists often do not recognize these symptoms in their patients, write Michael Miovic, MD, and Susan Block, MD, both from the Dana Farber Cancer Institute and Brigham and Women's Hospital, in Boston, Massachusetts.

"Psychiatric disorders are common in cancer patients and are undertreated but usually treatable, and treating them improves quality of life," said Dr. Miovic.

In their article, they point out that less than half of patients receiving palliative care who are also exhibiting symptoms of moderate to severe depression receive antidepressants, even though depression may be more instrumental in moderating the desire for hastened death than the presence of pain.

"Oncologists should be more proactive about screening patients for psychiatric disorders and referring them to individual or group interventions if they show moderate to high levels of emotional distress," Dr. Miovic told Medscape. "But there are no good, systematic data on how many oncology patients are receiving psychiatric or psychosocial treatments."

Data compiled from recent, well-designed studies show that, overall; approximately half of all patients with advanced cancer meet the criteria for a psychiatric disorder, especially when the diagnosis of adjustment disorder is included in the analyses. Adjustment disorders, write the researchers, are the most common psychiatric syndromes that oncologists will encounter in this patient population and are seen in 11% to 35% of cases.

Major depression is also commonly seen in patients with advanced cancer, occurring in 5% to 26% of cases, with the highest rates observed in patients with cancers of the pancreas, oropharynx, and breast. Symptoms of major depression have been associated with a shorter survival time among some cancer patients, and depression is also linked to a reduction in treatment adherence, prolonged hospitalization, and a lower quality of life. In addition, it is estimated that as many as 59% of patients with a terminal illness who desire assisted suicide suffer from depression.

Anxiety is also common, and significant symptoms occur in approximately 25% to 48% of cancer patients, the researchers note. About 2% to 14% of patients with advanced cancer meet the criteria for an anxiety disorder, but subsyndromal posttraumatic stress disorder occurs in 20% to 80% of cancer patients, depending on the methodology used in making the assessment.

Appropriate treatment will largely depend on the symptoms exhibited by the patient and the type of condition. The researchers recommend that oncologists collaborate with mental health specialists for patients who have major mental illness, personality disorders, and problems with substance abuse.

"Patients need access to psychiatric care in cancer facilities, as they are generally too overwhelmed and tired to travel to yet another site," he said. "It is also important to have a network of mental health providers who are familiar with oncology patients and their specific needs."

Empathic listening is the most important communication skill that oncologists can use with their patients, as it allows patients to express fears, concerns, hopes, and final wishes, as well as just giving them a chance to be heard, the researchers write. When physicians take time to listen to them, it also shows that they are not too preoccupied, too frightened, or too tired to be present for the patient, and that the patient is valued.

Like all chronic illnesses, cancer involves a series of threats and difficulties that change often getting worse overtime. Cancer creates unique stress for patients and their families. Not only the patients but their family members are also affected emotionally and psychologically when the diagnosis of cancer is made (Parkes, 1975). Investigators and clinicians have argued that the unexplained variance in the course of breast cancer may be due to psychological factors and the impact of factors like stress on disease course at every stage of breast cancer. Positive relationship between psychological variables and the onset and progression of breast cancer has been established. So, many popular books and magazine' articles have instructed cancer patients that they can overcome cancer with thoughts or by reducing distress (LeShan, 1977; Siegel, 1986). Both the retrospective and prospective investigations have been made to understand relationship of stress and onset of breast cancer.

These studies have produced variable results, with some studies reporting the positive association between stress and initial appearance of disease (Becker, 1979; Forsen, 1991), some finding that stress protects against cancer onset (Priestman *et al.*, 1985), and some finding no relation between stress and cancer diagnosis (Schonfield, 1975; Snell and Graham, 1971). Similarly some studies have examined women during the postoperative disease-free interval following surgery for breast cancer to understand the relationship between stress and reoccurrence of disease (Barraclough *et al.*, 1992; Ramirez *et al.*, 1989), which have produced the mixed results. Some investigators have used prospective designs in which participants were interviewed prior to learning their diagnoses. These studies revealed that, although the number of stressful life events reported was comparable among patients diagnosed with breast cancer and Psychopathology of Breast Cancer 63 those with benign lesions or healthy breasts, perceived severity of stressful events differed among the groups.

What is palliative treatment and when should it be used?

Palliative treatment is designed to relieve symptoms, and improve your quality of life. It can be used at any stage of an illness if there are troubling symptoms, such as pain or sickness. Palliative treatment can also mean using medicines to reduce or control the side effects of cancer treatments. In advanced cancer, palliative treatment may help someone to live longer and to live comfortably, even if they cannot be cured. '...helps the patient and their family to cope with cancer and treatment of it – from pre-diagnosis, through the process of diagnosis and treatment, to cure, continuing illness or death and into bereavement. It helps the patient to

maximize the benefits of treatment and to live as well as possible with the effects of the disease. It is given equal priority alongside diagnosis and treatment.' Supportive care is provided to people with cancer and their carers throughout the patient pathway, from pre-diagnosis and onwards. It should be given equal priority with other aspects of care and be fully integrated with diagnosis and treatment.

It encompasses:

• *Self help and support* • *user involvement* • *information giving* • *psychological support*
 • *Symptom control* • *social support* • *rehabilitation* • *complementary therapies* • *spiritual support* • *palliative care* • *end-of-life and bereavement care.*

Palliative care for cancer patient represents a special, albeit closely related field to adult palliative care. Palliative care for children is the active total care of the child's body, mind and spirit, and also involves giving support to the family. It begins when illness is diagnosed, and continues regardless of whether or not a child receives treatment directed at the disease. Health providers must evaluate and alleviate a child's physical, psychological, and social distress. Improving the quality life of cancer patients and their families.

Palliative care improves the quality of life of patients and families who face life-threatening illness, by providing pain and symptom relief, spiritual and psychosocial support to from diagnosis to the end of life and bereavement. Palliative care also helps to: • provides relief from pain and other distressing symptoms • affirms life and regards dying as a normal process • intends neither to hasten nor postpone death • integrates the psychological and spiritual aspects of patient care • offers a support system to help patients live as actively as possible until death;

It offers a support system to help the family cope during the patients illness and in their own bereavement; uses a team approach to address the needs of patients and their families, including bereavement counseling, if indicated;

will enhance quality of life, and may also positively influence the course of illness;

It is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.

Mind and body relation in a cancer patients:

Research in the area of *psychoneuroimmunology* (PNI) investigates the link between the mind and the body – how thoughts, feelings and attitudes positively or negatively affect illness or health. The mind and body work together in our overall health and recovery from illness. The way you react to stressful situations is relevant to your overall well-being, both during and after treatment for cancer.

Mind-Body Techniques To Reduce Stress And Enhance The Immune System

There are many ways to actively cope with cancer that can improve your quality of life and may also enhance your immune function. These include:

Managing stress through relaxation, meditation, imagery, physical activity or other stress reduction methods

Problem-solving strategies – especially with difficult treatment decisions

Managing the side effects of treatment – especially fatigue and pain

Managing depression to ensure that it is treated

Mind-body therapies:

Breathing and Relaxation:

The foundation of good health relies on correct breathing to supply oxygen to the entire body. Breathing exercises can help you deal with some of the stress and distress of cancer by helping you to relax, and focus on what makes you feel strong and healthy.

Spirituality: Being diagnosed with a potentially life-threatening disease often forces people to take a reflective look at their life. It may seem unlikely when you're first diagnosed, but the crisis of cancer can actually help you gain insight into your beliefs and experiences and promote personal growth. Each of us holds beliefs about life, its meaning, and value, whether or not we participate in a religious tradition. If you or a loved one is diagnosed with cancer, you may find comfort in your spiritual beliefs, or you may question your current understanding about why cancer occurs. Families sometimes feel distressed by the idea that the illness might be a punishment for some past sin or lack of faith. People with cancer who have a religious affiliation may wish to meet with a representative of their faith to discuss the difficult questions that arise, and be reassured that having doubts and being angry are normal responses to having cancer. Members of religious and spiritual communities also may provide practical help, such as assistance with transportation, meals, and visitation services.

Tapping into your spirituality – in whatever way is comfortable for you – can help give you a sense of life's meaning beyond yourself, improve your quality of life, ease your distress, and strengthen your spirit. If prayer has helped you deal with other troubles, it may be comforting now and help you feel less alone. Some other activities that can help are:

- Meditating
- Reading spiritual writings
- Attending religious services
- Helping others
- Doing yoga or other restorative exercises
- Surrounding yourself with nature
- Listening to music
- Spending time with loved ones

Conclusion and Future Directions: The clinical efficacy and extent of toxicity of numerous anticancer agents are unknown and uncertain. For example, research on majority of ayurvedic drugs is in the pre-clinical phase or is not being actively pursued. Future research on this topic would help to identify safe and effective anticancer drugs and will further the exploration of their mechanism of action. Ayurvedic practitioners and researchers in medical sciences can help to improve this medicine by increasing their involvement and contribution. Case study is the research design, which can form basis for future research directions and can provide valuable contributions to the medical field with minimal cost budgets.

Case studies have also been suggested by the NCCAM (National Centre for Complementary and Alternative Medicine, Bethesda, USA) as a means to determine whether a complementary anticancer therapy demonstrates potential efficacy against particular cancer and whether clinical development of the therapy should continue. It is no longer an option to ignore ayurvedic drugs or treat them as something unconventional from regular medical practices. The challenge put before this medicine is to move forward carefully, using both reasoning and wisdom. In most of the world, the majority of cancer patients are in advanced stages of cancer when first seen by a medical professional. For them, the only realistic treatment option is pain relief and palliative care. Effective approaches to palliative care are available to improve the quality of life for cancer patients. The WHO ladder for cancer pain is a relatively inexpensive yet effective method for relieving cancer pain in about 90% of patients.

References:

1. Sharma PV. Charaka samhita. Varanasi: Choukhamba Orientalia; 1981.
2. Bhisagratha KL. Sushruta samhita. Varanasi: Choukhamba Orientalia; 1991.
3. Prasad GC. Studies on cancer in Ayurveda and its management. *JRAS* 1987; 147–67.
4. Singh RM. An assessment of ayurvedic concept of cancer and a new Paradigm of anticancer treatment in Ayurveda. *J Altern Complement Med* 2002;8:609–14.
5. Sankaran PS. Swellings. In: Prasad GC, Udupa KN, editors. *Susruta's contribution to surgery*. Varanasi: Indological Book House; 1976. p. 99–111.
6. Dash B, Kashyap L. Diagnosis and treatment of Galaganda, Gandamala, Apaci, granthi and arbuda. In: Dash B, Kashyap L, editors. *Diagnosis and treatment of diseases in ayurveda*. New Delhi: Concept Publishing Company; 1987. p. 437–66.
7. Sastry JLN. Introduction to oncology, Cancer in Ayurveda. Varanasi: Chaukhambha orientalia; 2001. p. 1–24.
8. Premalatha B, Sachdanandam P. Modulating role of Semecarpusanacardium L. nut milk extract on aflatoxin B1 biotransformation. *Pharmacol Res* 2000; 41:19–24
9. Premalatha B, Sachdanandam P. Effect of Semecarpus anacardium Nut extract against aflatoxin B1 induced hepatocellular carcinoma. *Fitoterapia* 1999;70:484–92.
10. Singhal GD, Singh LM. The management of glandular swellings, Cervical lymphadenopathy, tumours and goiters. In: Singhal GD, Singh LM, editors. *Operative considerations in ancient Indian Surgery based on Susruta Samhita, Cikitsa sthana*. Varanasi: Singhal Publications; 1982. p. 339–56.
11. National Council for Hospices and Specialist Palliative Care Services/Department of Health. *The Palliative Care Survey 1999*. London: NCHSPCS/DoH. August 2000.
12. Department of Health. *Peer Review of Cancer Services: a national Overview*. London: DoH. 2002.
13. Higginson, I Astin, P., Dolan, S. Where do cancer patients die? Ten-year trends in the place of death of cancer patients in England. *Palliative Medicine* 12: 353-363. 1998.

Post-natal care (Sutika Paricharya)
An Ayurvedic approach with practical & scientific analysis

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Abstract: Post- natal period is a period following childbirth during which all the pelvic organs revert back approximately to the pre-pregnant state both anatomically and physiologically. Post-natal care can be certainly co-related with Sutika paricharya. A recently delivered women with expulsion of placenta is called Sutika. So, specific management of Sutika named as sutika paricharya, which is described only after expulsion of placenta..Woman during postnatal period becomes weak and ematiated due to labour pains, loss of blood and moisture (kleda). Therefore she needs special and proper management during her postnatal period. The objectives of sutika paricharya are restoration of mother's health, prevention of complications and puerperal diseases, proper lactation, assurance and emotional support and educating the mother, her partner or attendants about the care of sutika and her newborn baby.This paper highlights the practical and scientific aspects of sutika paricharya.

Keywords: Post-natal care, Sutika, Sutika paricharya, health, lactation

Introduction:The maternal morbidity and mortality rate is very high in developing countries. It is the most challenging problem in India. The causes of this problem are improper management, ignorance and less attention during post natal period. Ayurveda has always given the importance for care of mother at every steps of her life. In ayurvedic classics, the term sutika can be used only after expulsion of placenta (ka.s.khi.11/6) and sutikakal is a period following childbirth during which all body tissues revert back approximately to a pre-pregnant state. The duration of the period varies according to various ayurvedic classics.Acharya Charaka has not mentioned any specific time but other ayurvedic classics have mentioned the sutikakal i.e. 1&1/2month, 4 months and 6 months according to the condition of labour like normal or mudhgarbha or reappearance of menstruation. Woman during postnatal period becomes weak and ematiated due to loss of blood and moisture. All the dhatus decrease and become unsteady , her digestive power and muscle strength decrease, doshas are vitiated and Indriyas are exhausted. Due to appearance of languidness in the body is as a result of strong labour pains and exhaustion by the constant bearing down effect. With sutika paricharya she attains all her lost things and reaches her pre-pregnancy state. (A.S. Sharir, 3/39).

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PRACTICAL & SCIENTIFIC ASPECT OF SUTIKA PARICHARYA

In Ayurvedic literatures, specific management of sutika is described which can be elaborated or proven by the practical and scientific analysis of specific dietetics and mode of life during postnatal period.

➤ **Bala-taila abhyanga**^{1,2},

Massage helps the body by^{3,4,5}-

- Squeezing lymphocytes in general circulation.
- Reduces edema & swelling.
- Increases plasma tryptophan level, increases neurotransmitter serotonin, prevents & relieves postpartum blues & depression.
- Melatonin synthesized from tryptophan, decreases hypothalamus & pituitary hormone production, turns down body hormonal activity, sleep & sedation.
- Massage increases blood level of Histaminase, which decreases gastric acidity, improving headache, decreases allergic response.
- Lymphatic massage relieves sore muscles.
- Aids digestion, absorption & assimilation.
- Improves skin, soothes nerves & pulse to function.
- Aids body in using fat deposits.
- Strengthens lungs, intestine & vital organs for proper functioning⁶.

➤ **Puerperal woman should sit over a small chair covered with leather bag filled with hot Bala tail, sudation in yoni by oil prepared with Priyangu etc. drugs**⁷.

- **Udaraveshtana**- wrapping of abdomen with a big cloth or binder results getting back the uterus, abdominal muscles and pelvic organs to their proper place and also pacify the vitiated vata.
- Hot foementation of yoni helps in relieving pain, edema & helpful in early healing.
- Healing occurs by increasing the blood flow of area by vasodilatation.
- Oedema reduces by vasodilatation movement of fluid to intravascular compartment due to pressure gradient.
- Pain relieves by diminishing the tension on nerve endings.

➤ **Hot water bath & rest**^{8,9} -

- ❖ Rest and maintenance of hygiene is necessary during puerperal period to prevent infections of traumatized genitalia and cross infection to neonate.
- **Yoni fumigation with Kustha¹⁰, Guggulu¹¹, Aguru¹² mixed with ghritta¹³-**

All these drugs have essential volatile oils which have strong antiseptic, anti-inflammatory & disinfectant properties especially against streptococcus, staphylococcus, E. Coli, Pseudomonas, Neisseria gonorrhoea etc.¹⁴.

- **Decoction of Laghupanchmoola or Vatahara plants^{15, 16}.**

- Laghupanchmoola has Goksuru, Kantakari, Brihati, Saliparni and Prishaniparni. All these drugs have digestive, anti-inflammatory¹⁷ and antiseptic. Goksuru specially have anti bacterial property (alcohol and aq. Ext.) against S. aureus and E. coli¹⁸. So it prevents infection of traumatized tissue during puerperal period.
 - Drugs of Dashmoola group have diuretic¹⁹, digestive, appetizer²⁰, analgesic²¹, resolves body fluid²², antispasmodic and rejuvenating properties²³. These also help to regain bladder tone being nervine tonic²⁴.
-

- **Pippali, Pippalimoola²⁵, Chavya²⁶, chitraka²⁷, shringabera²⁸ churna with ghritta or hot jaggary^{29, 30, 31} -**

As ghritta being yogvahi enhances the properties of Panchkola by balancing its ruksa and tiksana properties. Panchkola drugs have antipyretic, appetizer, utero-tonic, antibacterial, antifungal, analgesic and anabolic.

- **After digestion of oleagenous substance rice gruel prepared with Vidarigandhadigana of drugs or milk^{32, 33} -**

Drugs of Vidarigandhadigana like Vidari, Mahabala, Nagbala, Kapikacchu, Jivaka, Rishbhaka, Satavari, Goksuru, Punarnava, Saliparni etc. are mostly Rasayana. So, these have anabolic action, hepatoprotective, rejuvenating and tonic³⁴ and help the woman to recover in puerperal period.

Satavari has proven galactagogue³⁵ and helpful in lactation.

Sariva purifies the milk³⁶.

- **Morning & evening irrigation with hot water.** ^{37, 38, 39}
- **Above regimen used for 3,5,7 nights**⁴⁰.
- **Liquid diet with soup**^{41, 42} **of yava, kola**⁴³, **kullatha**⁴⁴.

Liquid diet and soup of above contents are easily assimilable, quenches thirst, diuretic and demulcent, helpful in convalescence during puerperium. These are diuretics and enhance the excretion of peptones as urea and creatinine in urine. Peptones are liberated in the uterus by autolysis of protoplasm due to action of proteolytic enzymes which enter in blood stream

- **After 12 nights use of meat soup of wild animals, decoction of jivaniya, brimhaniya, madhura & vatahara drugs**⁴⁵.

Meat is an excellent food source of iron, vitamins, essential amino acids and trace elements⁴⁶. Madhura, Brihaniya drugs are anabolic and helpful to recover maternal system from stress and strain of labour. Helps in galactogenesis and enhances the property of maternal milk.

Discussion: Ayurveda is a national system of health care. Deaths during postnatal period are very high due to obstructed labour and high risk pregnancies. To reduce the rate of maternal morbidity & mortality, Sutika paricharya (post natal care) is the best option. Women during sutika kala (postnatal period) becomes weak or ematiated due to labour pains, loss of nutrients & loss of blood. The normal activities are also an important part of Sutika paricharya, which help to reduce physical and mental strain in sutika. Proper counselling and reassurance help to avoid the puerperal complications like postpartum depression and psychosis or mania. It has been proved that Bala taila massage increases the circulation, improves the digestion reduces the oedema, stress and it also tones up the muscles of abdomen and pelvis. Hot sudation helps in early healing and diminishes the pain. Udaraveshtan helps getting back the abdominal and pelvic organs to their proper place and subsides the aggravated vata. All the puerperal complications like- fever, loss of appetite, constipation, oedema, urinart tract diseases etc. can be prevented by the use of decoction of dashmula, Panchkola and liquid diet with soup of yava, kola and kullatha. These drugs have anti-pyretic, diuretic, anti-bacterial, appetizer, analgesic, anti-inflammatory and rejuvenating properties. Hence madhur, brahaniya drugs are anabolic and helpful to recover the maternal system from stress and strain of labour and enhance the property of lactation. Yoni fumigation helps to prevent the puerperal infection or sepsis. The volatile oils of the drugs used in fumigation have the antiseptic, antibacterial and anti-inflammatory properties. Therefore, sutika paricharya helps in re-establishment of health of woman after delivery and prevents the puerperal complications.

Conclusion: The ancient medical science has described the safe-motherhood. Sutika paricharya plays an important role to make the motherhood very safe. The concept of sutika paricharya explains the importance of re-establishment of all the dhatus, nutrition and re-appearance of menstruation after delivery. After thorough review of classical text, it can be concluded that proper management and care is requirement and right of every woman after delivery. It replenishes the health of woman and reduces the post-partum complications. Thus post-natal care is beneficial and practical till –today.

REFERENCES

- i. SusrutaSamhita. JadhavjiTrikamji, editor. 5thed. Varanasi; ChaukhambhaOrientalia; 1992. Sharirasthana 10/18
- ii. AstangaSangraha, Vol I. Gupta Atridev, editor. Isted: Varanasi: Oriental Publishers; 1993. Sharirasthana 3/38
- iii. Yoffy JM et al 2nded, Landon, UK
- iv. J P Sychosom Obstet Gynecol June 2004; 25: 115-122
- v. Journal of Lifelong Learning In Psychiatry, Wenter 2012, Vol X
- vi. Herlting & Kessles R 1996
- vii. Kashyapasamhita. Sharma H, editor. 4thed. Varanasi Chaukhambha Sanskrit Snsthab; 1988. 11/20
- viii. SusrutaSamhita. JadhavjiTrikamji, editor. 5thed. Varanasi; ChaukhambhaOrientalia; 1992. Sharirasthana 10/18 Dalhan
- ix. Kashyapasamhita. Sharma H, editor. 4th ed. Varanasi Chaukhambha Sanskrit Snsthab; 1988. 11/22

- x. J Ethanopharmacol 2007 Apr 4;110 (3):379,90
- xi. Chem. Biodivers 2004 Nov;1 (11):1842-53
- xii. Iyer SR,1994
- xiii. Kashyapasamhita. Sharma H, editor. 4thed.Varanasi Chaukhambha Sanskrit Snsthab;1988. 11/22
- xiv. J IntEnv application & science Vol 5 (5);832-41,2010
- xv. SusrutaSamhita. JadhavjiTrikamji, editor.5thed.Varanasi;ChaukhambhaOrientalia; 1992. Sharirasthana10/16,18
- xvi. AstangaSangraha,VolI.GuptaAtridev,editor.Isted:Varanasi:Oriental Publishers;1993.Sharirasthana 3/38
- xvii. J-AIM Vol-4 Issue-1 2013;23-27
- xviii. Int.J.Chem.Sci:7 (3),2009,1867-1872
- xix. J.Nat.Prod.Plant resour,2013,5 (4):79-88
- xx. Rastogi PR 1990
- xxi. World J of Phamacy& Pharmaceutical Science 2013;2 (5):3118-3136
- xxii. Chopra et al 1992
- xxiii. J Ethanopharmacol 2011 June 22;136 (2):283-96
- xxiv. Indian J of Exp Biology Vol 47,Nov 2009,PP 849-86
- xxv. Chauhan,IJRAP 2011,2(1) 157-161
- xxvi. Khushbu et al APJTB (2012) 51945-51953
- xxvii. Sanjanadutta et al IJRPBS Vol 3 (1) Jan-Mar 2012
- xxviii. KathiJ.Kemper Nov 3,1999
- xxix. CharakaSamhita,ShashtriKashinath,ChaturvediGorakhanathaAcharya,editor.1sted.Varanasi;Choukhabh aBharati Academy;2005. 8/48
- xxx. SusrutaSamhita.JadhavjiTrikamji,editor.5thed.Varanasi;ChaukhambhaOrientalia;1992.Sharirasthana 10/16,18
- xxxi. AstangaSangraha,VolI.GuptaAtridev,editor.Isted:Varanasi:Oriental Publishers;1993.Sharirasthana 3/38
- xxxii. SusrutaSamhita. JadhavjiTrikamji, editor. 5thed. Varanasi; ChaukhambhaOrientalia; 1992. Sharirasthana 10/16,18
- xxxiii. AstangaSangraha,VolI.GuptaAtridev,editor.Isted:Varanasi:Oriental Publishers;1993.Sharirasthana 3/38
- xxxiv. SubhaRastogi et alEBCAM 2013 ID 3682,p 6
- xxxv. IJPB 2011;2(3):855-863
- xxxvi. IJPPR Sep-Nov 2011 Vol-3,Issue 3 (74-79)
- xxxvii. CharakaSamhita,ShashtriKashinath,ChaturvediGorakhanathaAcharya,editor.1sted.Varanasi;choukhabh aBharati Academy;2005.P468
- xxxviii. SusrutaSamhita. JadhavjiTrikamji, editor. 5th ed. Varanasi; ChaukhambhaOrientalia; 1992. Sharirasthana 10/16,18
- xxxix. AstangaSangraha, Vol I. Gupta Atridev, editor. Isted: Varanasi: Oriental Publishers; 1993. Sharirasthana 3/38
- xl. AstangaSangraha, Vol I. Gupta Atridev, editor. Isted: Varanasi: Oriental Publishers; 1993. Sharirasthana 3/38
- xli. AstangaSangraha, VolI. Gupta Atridev, editor. Isted: Varanasi: Oriental Publishers; 1993.Sharirasthana 3/38
- xlii. SusrutaSamhita. JadhavjiTrikamji, editor. 5thed.Varanasi; Chaukhambha Orientalia;1992. Sharirasthana 10/16,18
- xliii. Mahajan RT, Chopda MZ Phyto Pharmacology of Ziziphus jujube Mill. phcog Rev 2009; 3:320-329
- xliv. www.en.wikipedia.org/wiki/Horse_gram
- xlv. AstangaSangraha,VolI.GuptaAtridev,editor.Isted:Varanasi:Oriental Publishers;1993.Sharirasthana 3/38
- xlvi. En.wikipedia.org/wiki/Meat

The Role of Yoga and Diet in arthritis”

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Abstract: Joint Pain in the form of Osteoarthritis is a leading cause of disability in India. It also impacts patient’s quality of life. The main cause of this disease is improper sitting posture, continuous & over exertion, prolonged traveling by different vehicles, less sports activities, exercises, etc. which in fact cause undue pressure on spinal cord, knee joints, shoulder joints, wrist joint, etc. and produce low backache, joint pain, while estimating the joint pain and low backache the incidence rate of this disease goes higher than 60%. If this type of joints pain sustain for a prolonged period with the affection of individual body then the disease tends to manifest its severity and chronicity.

Although management of osteoarthritis typically includes the use of medications, pharmacologic agents can be associated with numerous potential side effects and variable efficacy. Physicians and other health care professionals treating individuals with osteoarthritis need to provide these patients with viable options to accomplish their exercise goals and proper Diet Plan. Although yogic philosophy addresses numerous aspects of well-being that might have an effect on health and disease, the use of the physical postures, or *asanas*, can be used as a form of exercise.

In Ayurveda Various modalities like Aganikarma,PanchakarmaSiravedana along with Yoga are being used for management for joints Pain.In Ancient Acharya significant attention has focused on Role of Yoga in chronic joint paint.

Key Word: Osteoarthritis, disability, chronicity Aganikarma, PanchakarmaSiravedana Yoga & asanas.

The word *arthritis* means inflammation of the joint. Inflammation is a medical term describing pain, stiffness, redness and swelling. Arthritis is a disease that can involve any of the joints in the body, often occurring in the hip, knee, spine or other weight-bearing joints, but can also affect the fingers and other non-weight bearing joints. Untreated inflammation can eventually lead to joint damage, destruction and disability. Some forms of arthritis can also affect the body’s internal organs.

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Signs of Arthritis: Joint swelling, sometimes feeling hot to touch.

Pain and stiffness in multiple joints, sometimes affecting the same joints on both sides of the body

Stiff joints in the morning lasting more than hour.

Fever, fatigue, weight loss or decreased appetite.

Nodules (growth that forms under your skin), most commonly on the elbows, hands and feet; this occurs in 20 per cent of people

Medications Used for Arthritis: Corticosteroids: Anti-Rheumatic Drugs (DMARDs), Non-Steroidal Anti-Inflammatory Drugs (NSAIDs).

Complementary Therapy: Acupuncture, Massage, Homeopathy, *Dietary Therapy*.

Good and proper diet plays important role in arthritis certain dietary changes help to improve the symptoms of Arthritis. Polyunsaturated oils and omega-3 supplements have a mild beneficial effect, and vegetarian diets are beneficial. The journal *Rheumatology* published a study that found a gluten-free vegetarian diet improved the signs and symptoms of Arthritis. Vegetarian diet, rich in antioxidants and fiber was decrease joint stiffness and pain in patients with Arthritis. Multiple research studies concluded that this dietary treatment might be useful in the treatment of Arthritis.

Vegetarian diets dramatically reduce the overall amount of fat in the diet, and alter the composition of fats. This, in turn, can affect the immune processes that influence arthritis. The omega-3 fatty acids in vegetables may be a key factor, along with the near absence of saturated fat. The fact that Patients also lose weight on a vegetarian diet contributes to the improvement. In addition, vegetables are rich in antioxidants, which can neutralize free radicals. Oxygen free radicals attack many parts of the body, contribute to heart disease and cancer and intensify the aging processes generally, including of the joints. Iron acts as a catalyst, encouraging the production of these dangerous molecules. Vitamins C and E, which are plentiful in a diet made of vegetables and grains, help neutralize free radicals. Meats supply an overload of iron, no vitamin C, and very little vitamin E, whereas vegetables contain more controlled amounts of iron, and generous quantities of antioxidant vitamins. As well as being helpful in preventing arthritis, antioxidants may also have a role in reducing its symptoms. Some arthritis treatments, including non-steroidal anti-inflammatory drugs, work at least in part by neutralizing free radicals. For the most part, however, vitamins and other antioxidants will be of more use in preventing damage before it occurs, rather than in treating an inflamed joint. Diet from fruits, vegetables, grains and beans there of reappears to be helpful in preventing and, in some cases of arthritis. Omega-6: Omega-6 fatty acid, which is found in the oil from seeds of several plants including evening primrose, borage and black currant, is used to reduce symptoms of RA. However, evidence is limited as to whether these fatty acids actually work to reduce inflammation.

- In Ayurveda the various synonyms of Pain like Sula, Vedana, Ruja, Pida & Dukha.
- Arthritis means Joint Pain.
- Osteoarthritis means Degenerative joint diseases.
- As per Ayurveda Arthritis Caused by aggravation of vata dosa and the excessive collection of Ama (Toxic by product of improper digestion) When it starts accumulating in the joints and at the same time aggravation of Vata takes place, the results is amavata in the other words Arthritis

Ayurvedic Treatment: Large numbers of drug have been mentioned as vednahar and vatasamak used in Ayurveda like:-

- | | | | |
|------------|--------|-----------|----------|
| • Turmeric | Garlic | Ginger | Licorice |
| • Nirgundi | Tagar | Shallaki | Rasana |
| • Rasana | Eranda | Shigru | Ashoka |
| • Parijat | | Dashmoola | |

Minerals:-Godanti bhasma,Gugglu,copper &calcium are used.

In Ayurveda various modalities for Joints Pain like:- Aganikarma,Panchakarma,Siravedana and Yoga is being used for management for joints Pain.

In Ancient Acharya significant attention has focused on Role of Yoga in chronic joint pain. Numerous studies have been done on the benefits of yoga on stress and anxiety. The practice of breath control, simple meditation and stretching can improve a person's state of mind and help them better manage their pain. Regular yoga under the guidance of a certified instructor can also boost one's general health and increase energy levels. The various type of postures or Asana can be used as a form of Exercise for treating knee joints pain but Hata Yoga is most beneficial.The use of Hata Yoga emphasized strength, attention, flexibility and relaxation to the extremities to the Spine. Management of osteoarthritis typically includes the use of medications; pharmacologic agents can be associated with numerous potential side effects and variable efficacy. Physicians and other health care professionals treating individuals with osteoarthritis need to provide these patients with viable options to accomplish their exercise goals.

In this regard Iyengar method of hatha yoga proves the efficacy to treat various type joints Pain these are:- Tadasana ,Uttitha Trikonasana,Virabhadrasana , Dandasana, Supta Tadasana ,Ardha Uttanasana , Baddha Konasana , Urdhva Prasarita Padasana , Virasana , Swastikasana , Savasana.Scientifically it has proved that this type of different asana (Yoga) improves both flexibility and strength and could theoretically be beneficial to some musculoskeletal problems.

The use of the Iyengar approach to hatha yoga emphasizes strength, flexibility, and relaxation, with particular attention to alignment of body structures.

Ayurveda also emphasis the role of diet in Arthritis and describe as Pathya(do) and Apathya(don'ts).

Pathya for Arthritis: Yava (barley), kulattha (horse gram),raktashali (rice),vastuk, shigru (drum sticks),punarnava, karvellak (bitter gourd), parawar, ardrak (ginger)rasona or ginger (shodhit with takra)janganl mansa (meat).hot water.

Apathya for Arthritis: Dadhi – Curds Matsya – Fish Guda – Jaggery / Molasses Ksheera – Milk Potaki Masha – Black Grams Upadika –Pishtakam – Flour products Guru Ahara – Foods which are heavy to digest

Abhishyandi Ahara – Foods which cause stagnation and blocks in the body

Viruddha Ahara – Mutually incompatible foods

Vishama Ashana – Altered quality, quantity and timing of food

Dushta Neeram – Contaminated water.

Conclusion: Though management of osteoarthritis typically includes the use of medications, pharmacologic agents can be associated with numerous potential side effects and variable efficacy, but some intervention of life style and continuous use of Ayurvedic drug, with proper diet and applying different Asana in the form of proper Yoga can better control the arthritis and achieved to cure the disease with improvement of quality of life.

References:-

- Charaka Samhita with Chakrapani commentary, Published by Nirnaya Sagar Press Bombay.
- Mādhava Nidāna: Mādhava Nidāna, Chaukhambha Sanskrit Series Office, Varanasi.
- Agnivesha. Acharya Jadavji Trikamji, editor. Charaka samhitha with Ayurveda Dipika commentary of Chakrapanidatta; Chikitsasthana, Varanasi, Chaukhambha Prakashan, 2007.
- Yogaratnakara: English translation by MS Suresh Babu (2015). Chaukhambha Sanskrit Series Office, Varanasi, Amavata Chikitsa
- Chakradatta: Hindi translation by JP Tripathi (1983). Chaukhambha Sanskrit Series Office, Varanasi, Amavata Chikitsa
- Sushruta. Acharya Narayana Ram, Editor. Susruta Samhita Moolamaatra; Sootrasthana, Varanasi, by Chaukhambha Krishnadas Academy.
- Agnivesha. Acharya Jadavji Trikamji, editor. Charaka samhitha with Ayurveda Dipika commentary of Chakrapanidatta; Chikitsasthana, Varanasi, Chaukhambha Prakashan, 2007
- Vagbhatacharya. Astanga Hridaya. Shastri kashinath. Varanasi, Chaukhambha Orientalia, 1998
- American Pain Foundation: Pain facts: An overview of American Pain Surveys. Available at www.painfoundation.org
- Tarzian AJ, Hoffmann DE: Barriers to managing pain in the nursing home : findings from a statewide survey. J Am Med Dir Assoc 5: 82, 2004.
- Raj PP. Taxonomy and classification of pain. In: Niv D, Kreitler S, Diego B, Lamberto A. *The Handbook of Chronic Pain*. Nova Biomedical Books; 2007. ISBN 1-60021-044-9.
- Hatha Yoga pradipika.
- Simopoulos P. Essential Fatty Acids in Health and Chronic Disease. Presentation, The Third International Congress on Vegetarian Nutrition, March, 1997.
- Ray, S. Dutta, Yogic Exercises, Publication Jaypee Brothers, New Delhi, 1998.

Comparative study of Herbal drug compound (Dashmool) and Agni Karma for management of joint pain

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Abstract: Ayurveda is one of the most ancient medical sciences of world. It conceives and describes the basis and applied aspect of life process, health, disease and its management in terms of its own principles and approaches. Sandhi Vata (Arthritis) is a clinical condition in which structural as well as functional derangement takes place during the process of pathogenesis, which causes impairment of function, severe pain and swelling due to which movement of joint may be restricted.

Alternative therapies are a broad group of natural and spiritual healing methods different from the conventional western medicine (or pharmaceutical medicine). Many of these healing methods have been used for centuries in many different cultures. Ayurveda, Acupuncture, Aromatherapy, Meditation, Naturopathy, etc. are some examples. Modern medical science worked very conscientiously in search of a safe analgesic but it is not available at hand till date. The present study has been undertaken to fulfil the following aims and objectives:-

- To reduce the severity and duration of painful condition.
- To provide cheap, safe and effective treatment in pain management.
- To standardize an effective Ayurvedic line of treatment in the management of joint pain.

Keywords- Pain, Sandhi Vata, Sothahara, Dashmool, V.A.S., Ghan Vati, Shalaka, Agni Karma.

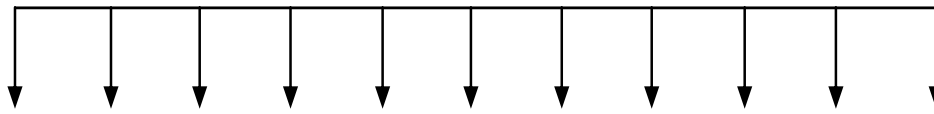
Introduction: A clinical study was conducted over 100 patients suffering from joint pain (Sandhi Vata-Arthritis), present study was designed to evaluate and compare the efficacy of Agni Karma and an indigenous compound Dashmool (Bilva, Agnimantha, Syonaka, Patala, Gambhari, Salparni, Prisnaparni, Brihati, Kantakari and Eranda). The present study has been planned in two groups over 100 patients. Both the groups were observed weekly and findings were recorded on standard proforma. The patients of group I were treated with Dashmool Ghan Vati 1000 mg twice a day and patients of group II were treated with Agni Karma at weekly interval. The clinical study was based on observation over period of three weeks of treatment at O.P.D., S.S. hospital B.H.U. Varanasi

Materials and method-The patients suffering from joints pain (Sandhi Vata) were taken up for the study, and an informed consent was obtained. Total 100 patients were randomly divided into two equal groups of age, sex, height and weight distribution. The patients of group I were treated with Dashmool Ghan vati 1000 mg orally twice a day for three weeks, and patients of group II were treated with conventional method of Agni Karma locally by Panch Dhatu Shalaka to deliver bindu type of Agni Karma over site of maximum pain as expressed by patients at weekly interval for three weeks. The patients were observed at weekly intervals as per proforma prepared for the study.

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Criteria of Assessment-Improvement in the patients were assessed on the basis of relief in the cardinal signs and symptoms. They were pain, ability to do daily routine work, pricking sensation, radiation of pain and tenderness. To assess the effect of therapy objectively, all the signs and symptoms were given scoring depending on their severity as below:

1. Pain as recorded on a visual analogue scale.



	O	I	II	III	IV	V	VI	VII	VIII	IX	X
Mild pain				=	I – III						
Moderate pain				=	IV – VII						
Severe pain				=	VIII– X						
2. Karnofsky's performance scale											
Normal activity with no special care										O	
Unable to work but manages to live at home										I	
Needs hospital care										II	
3. Pricking sensation											
a) No pricking sensation											O
b) Occasional pricking sensation											I
c) Constant mild pricking sensation											II
d) Constant moderate pricking sensation											III
e) Constant severe pricking sensation											IV
4. Radiation of pain											
a) No radiation of pain											O
b) Pain radiates up to thigh											I
c) Pain radiates up to knee joint											II
d) Pain radiates up to leg											III
e) Pain radiates up to ankle											IV
f) Pain radiates up to foot											V
5. Tenderness											
a) No pain on palpation											O
b) Pain occurs on deep palpation											I
c) Pain occurs on light palpation											II
d) Patient does not allow to touch the affected part											III

Clinical assessment of patients was done during every visit and grades were assigned on all the above five parameters.

Observation and Results

1. Grouping of Patients-

In this study 100 patients were registered irrespective of their age, sex height and weight etc. They were randomly Categorize in two groups.

Table No. 1. The number of patients and nature of treatment in the selected groups.

Groups	No. of Patients	Treatment	Observation
Group I	50	Indigenous Compound ,Dashmool Ghan Vati 1000mg B.D. orally for 3 weeks Exercise – Mild exercise of affected joint for a few minutes at a time but several times a day	At Initial visit, First Follow up, Second Follow up and Final Follow up; at weekly intervals
Group II	50	Agnikarma by Pancha Dhatu Shalaka on most painful part of joints (once in week) for 3 weeks Exercise – same as above	Same as above

2. Age, Height and Weight

Table No.2: The mean, standard deviation and statistical comparison of age, height and weight between the groups

Groups	Age in years (Mean±SD)	Height in cm (Mean±SD)	Weight in Kg (Mean±SD)
Group I	48.50±12.04	159.80±5.96	64.64±10.36
Group II	51.98±10.55	158.54±4.37	64.36±6.75
Comparison between the groups	t = 1.53 p > 0.05 NS	t = 1.24 p > 0.05 NS	t = 0.16 p > 0.05 NS

N.S. = Not Significant

It is obvious from Table No. 2 that the mean age, height and weight of patients in both groups are identical ($p > 0.05$) and statistically insignificant.

3. GENDER :

Table No. 3: The distribution of cases according to gender and their statistical comparison between the groups:

Gender	Groups			Comparison between Groups
	Group-I	Group-II	Total	'p' value
Female	29 (29%)	34 (34%)	63 (63%)	>0.05 NS
Male	21 (21%)	16 (16%)	37(37%)	

N.S. = Not Significant.

The above Table shows statistical comparison between the groups, and difference to be statistically insignificant.

Assessment criteria for pain:

Visual Analogue Scale-Table No.4A: The mean, standard deviation and statistical comparison of Visual Analogue Scale scores between the groups at successive visits:

Observation interval	Visual Analogue Scale (Mean±SD)		Comparison between the groups
	Group-I	Group-II	
BT	5.48±0.88	5.90±0.93	t = 2.31 p < 0.05 (S)
FU1	4.16±0.86	4.34±1.40	t = 0.77 p > 0.05 (NS)
FU2	3.60±0.80	3.30±1.41	t = 1.30 p > 0.05 (NS)
FU3	3.20±0.88	2.46±1.34	t = 3.25 p < 0.01 (HS)

V.A.S. =visual analogue scale, BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; S=Significant, N.S. = Not Significant, H.S. =Highly Significant. VAS scores: 0=No pain, 1 to 3=mild pain, 4 to 7=moderate pain, 8 to 10=severe pain.

The Table No. 4A shows the mean values and standard deviation of Visual Analogue Scale (VAS) score of patients before, during and after treatment along with statistical analysis between the groups. The mean values of VAS score in group-I from before treatment to subsequent follow-up were 5.48±0.88, 4.16±0.86, 3.60±0.80 and 3.20±0.88 respectively. The mean values of VAS group-II from initial visit to subsequent follow-up were 5.90±0.93, 4.34±1.40, 3.30±1.41 and 2.46±1.34 respectively. From above we conclude that mean of VAS score decline after every follow-up in either group but in Agni karma groups (group-II) rapid decline of mean value of VAS score. The statistical comparison between groups, 'p' value < 0.05 (significant) before treatment. It shows that at initial visit VAS score difference more and at final follow-up < 0.01 (highly significant) shows that difference was more between groups, and at 2nd and 3rd follow-up 'p' value > 0.05 (not significant) it shows difference of mean value were identical and statistically insignificant. It also shows that patient of Agni Karma groups have maximum VAS score at initial visit and minimum VAS score at last follow-up in comparison to group I and group II.

Table No.4B: The statistical comparison of difference in mean value of Visual Analogue Scale score before, during and after treatment within the groups:

Intra comparison	group	
	Group-I (Mean±SD) Difference, 't' value and 'p' value	Group-II (Mean±SD) Difference, 't' value and 'p' value
BT vs. FU1	1.32±0.55 t = 16.93 p < 0.001 (HS)	1.56±1.31 t = 8.40 p < 0.001 (HS)
BT vs. FU2	1.88±0.68 t = 19.28 p < 0.001 (HS)	2.60±1.48 t = 12.38 p < 0.001 (HS)
BT vs. FU3	2.28±0.67 t = 24.01 p < 0.001 (HS)	3.44±1.40 t = 17.34 p < 0.001 (HS)
FU1 vs. FU2	0.56±0.67 t = 5.86 p < 0.001 (HS)	1.04±1.12 t = 6.54 p < 0.001 (HS)
FU1 vs. FU3	0.96±0.49 t = 13.76 p < 0.001 (HS)	1.88±1.08 t = 12.29 p < 0.001 (HS)
FU2 vs. FU3	0.40±0.70 t = 4.04 p < 0.001 (HS)	0.84±1.03 t = 5.72 p < 0.001 (HS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; S=Significant, N.S. = Not Significant, H.S. =Highly Significant.

The Table No.4B shows the statistical comparison by paired t test within the groups. The comparison was made between initial visit (before treatment BT) and subsequent follow-up visits (FU1, FU2 and FU3).It shows the impact of duration of treatment. Then comparison was further done between 1st Follow-up (FU1) and later Follow-up visits (FU2 and FU3). Lastly comparison was done between 2nd and 3rd Follow-up (FU2 and FU3). It was seen in the table that the 't' values were high in each instance in both groups, indicating statistically highly significant (p value < 0.001) Maximum difference of mean in each group was seen between BT vs. FU3 which indicates that maximum difference of mean of VAS score during these interval the result shows maximum pain relief on the basis of VAS score was seen after 3 weeks treatment in either groups, but Agnikarma groups have maximum mean difference of VAS score.

Karnofsky's Scale - Table No.5A: The mean, standard deviation and statistical comparison of Karnofsky's scale scores between the groups at successive visits:

Observation interval	Karnofsky's Scale (Mean±SD)		Comparison between the groups by Mann-Whitney test
	Group-I	Group-II	z value and 'p' value
BT	0.12±0.32	0.36±0.48	z = 2.79 p < 0.01 (HS)
FU1	0.10±0.30	0.32±0.47	z = 2.68 p < 0.01 (HS)
FU2	0.06±0.24	0.12±0.32	z = 1.04 p > 0.05 (NS)
FU3	0.06±0.24	0.02±0.14	t = 1.01 p > 0.05 (NS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant, H.S.=Highly Significant. Karnofsky's scale scores: Normal activity with no special care=0, Unable to work but able to live at home=1, Needs hospital care=2.

The Table No. 5A shows the mean values and standard deviation of Karnofsky's Performance Scale scorings of patients before, during and after treatment, along with statistical analysis. The mean values from initial visits to subsequent follow-up visits in group-I were 0.12±0.32, 0.10±0.30, 0.06±0.24 and 0.06±0.24 respectively. The mean values from initial visits to subsequent follow-up visits in group-II were 0.36±0.48, 0.32±0.47, 0.12±0.32 and 0.02±0.14 respectively. This showed a decline of mean value of karnofsky's scale score in either group at every visit.

The comparison between groups by Mann-Whitney test show at initial visit was highly significant (p < 0.01), and at 1st follow-up it was also highly significant. However, at 2nd and 3rd follow-up visits the statistical comparison showed similar result in both groups i.e. p > 0.05 (not significant).

Table No.5B: The statistical comparison of difference in mean value of Karnofsky's scale before, during and after therapy within the groups by Wilcoxon Signed Rank Test:

Intra Group Comparison	Groups	
	Group-I Z value and 'p' value	Group-II Z value and 'p' value
BT vs. FU1	Z = 1.00 P > 0.05 (NS)	Z = 1.41 P > 0.05 (NS)
BT vs. FU2	Z = 1.73 P > 0.05 (NS)	Z = 3.64 P < 0.01 (HS)
BT vs. FU3	Z = 1.73 P > 0.05 (NS)	Z = 4.12 P < 0.001 (HS)
FU1 vs. FU2	Z = 1.41 p > 0.05 (NS)	Z = 3.16 p < 0.05 (HS)
FU1 vs. FU3	Z = 1.41 p > 0.05 (NS)	Z = 3.87 p < 0.001 (HS)
FU2 vs. FU3	Z = 0.00 p > 0.05 (NS)	Z = 1.89 p > 0.05 (NS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant, H.S. =Highly Significant

The Table No. 5B shows the statistical comparison within each group. The comparison was made between initial visit (before treatment BT) and subsequent follow-up visits (FU1, FU2 and FU3). This shows the effect of treatment with respect to treatment duration. The comparison was further made between 1st follow-up (FU1) and later follow-up visits. Lastly comparison was done between 2nd follow-up (FU2) and final follow-up (FU3). This enables us to see if and when an end point is reached during the course of treatment.

It was seen from the table that the Z values were high in both groups but the last instance in both the groups. This showed that the response to treatment was equally good in both the groups. The comparison between FU2 and FU3 indicating p value > 0.05 implied that the patients in both the groups reached satisfactory end-points by two weeks so far as Karnofsky's performance scale is concerned.

Pricking Sensation - Table No.6A:The mean, standard deviation and statistical comparison of Pricking Sensation between the groups at successive visits:

Observation interval	Pricking Sensation (Mean±SD)		Comparison between the groups by Mann-Whitney test
	Group-I	Group-II	Z and 'p' value
BT	0.56±0.67	0.84±0.65	z = 2.25 p < 0.05 (S)
FU1	0.40±0.63	0.40±0.57	z = 0.24 p > 0.05 (NS)
FU2	0.24±0.47	0.10±0.36	z = 1.90 p > 0.05 (NS)
FU3	0.14±0.35	0.08±0.27	z = 0.95 p > 0.05 (NS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant. Pricking Sensation scores: No pricking sensation=0, Occasional pricking sensation=1, Constant, mild pricking sensation=2, Constant moderate pricking sensation=3, Constant severe pricking sensation=4.

The Table No. 6A shows the mean values and standard deviation of grades assigned to patients having associated Pricking Sensation, the comparison between the groups was made by Mann-Whitney test. The mean \pm standard deviation values before treatment in Group-1 were 0.88 ± 0.63 , at 1st follow-up 0.64 ± 0.60 , at 2nd follow-up (FU2) 0.16 ± 0.42 and at 3rd follow-up (FU3) 0.14 ± 0.41 respectively. The values in Group-2 were at initial visit (before treatment-BT) 0.84 ± 0.65 , at 1st follow-up (FU1) 0.40 ± 0.57 , at 2nd follow-up (FU2) 0.10 ± 0.36 and at final follow-up, 0.08 ± 0.25 respectively. It showed a rapid decline in mean values in Group-2 as compared to Group-1. However the statistical comparison between the groups showed Z values 0.37, 1.84, 0.93 and 0.69 respectively at BT, FU1, FU2 and FU3. Thus the difference was statistically not significant ($p > 0.05$) at all levels.

Table No.6B: The statistical comparison of difference in mean values of Pricking Sensation before, during and after treatment within the groups:

Intra Group Comparison	Groups	
	Group-I Z value and 'p' value	Group-II Z value and 'p' value
BT vs. FU1	Z =2.82 P < 0.05 (S)	Z =4.69 P < 0.001 (HS)
BT vs. FU2	Z = 4.00 P < 0.001 (HS)	Z = 5.62 P < 0.001 (HS)
BT vs. FU3	Z = 4.37 P < 0.001 (HS)	Z = 5.56 P < 0.001 (HS)
FU1 vs. FU2	Z = 2.82 p < 0.01 (HS)	Z = 3.87 p < 0.001 (HS)
FU1 vs. FU3	Z = 3.35 p < 0.01 (HS)	Z = 4.00 p < 0.001 (HS)
FU2 vs. FU3	Z = 2.23 p < 0.05 (S)	Z = 0.44 p > 0.05 (NS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant, H.S. =Highly Significant.

The Table No. 6B shows the statistical comparison within each group by paired t test. As in the case of Karnofsky's scale, the comparison between FU2 and FU3 was statistically significant in group I and insignificant in group II while all other pairs showed highly significant differences. Thus it was seen that Pricking Sensation in general got reduced by two weeks in majority of patients.

Radiating pain- Table No.7A: The mean, standard deviation and statistical comparison of Radiating Pain between the groups:

Observation interval	Radiating Pain (Mean±SD)		Comparison between the groups by Mann-Whitney test
	Group-I	Group-II	z and 'p' value
BT	0.72±1.51	1.12±1.56	z = 1.75 p > 0.05 (NS)
FU1	0.54±1.11	0.56±1.01	z = 0.64 p > 0.05 (NS)
FU2	0.44±0.95	0.20±0.49	z = 0.83 p > 0.05 (NS)
FU3	0.36±0.80	0.04±0.28	z = 2.84 p < 0.01 (HS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant. Radiating Pain scores: No radiation of pain=0, Pain radiates down to thigh=1, Pain radiates down to knee joint=2, Pain radiates down to leg=3, Pain radiates down to ankle joint=4, Pain radiates down to foot=5.

The Table No. 7A shows the mean values and standard deviation of Radiating Pain among the patients and statistical comparison the comparison between the groups was made by Mann-Whitney test. The mean values in Group-1 were at BT 0.72±1.51; at FU1, 0.54±1.11; at FU2, 0.44±0.95 and at FU3, 0.36±0.80 respectively. The mean values in Group-2 were at BT 1.12±1.56; at FU1, 0.56±1.01; at FU2, 0.20±0.50 and at FU3, 0.04±0.28 respectively. The comparison showed statistically not significant at all the visits (p > 0.05) except at last visits FU3 where statistically highly significant.

Table No.7B: The statistical comparison of difference in mean value of Radiating Pain before, during and after treatment within the groups by Wilcoxon Signed Rank Test:

Intra Group Comparison	Groups	
	Group-I Z value and 'p' value	Group-II Z value and 'p' value
BT vs. FU1	Z =2.25 P < 0.05 (S)	Z =3.60 P < 0.001 (HS)
BT vs. FU2	Z = 2.88 P < 0.01 (HS)	Z = 3.95 P < 0.001 (HS)
BT vs. FU3	Z = 2.99 P < 0.01 (HS)	Z = 4.04 P < 0.001 (HS)
FU1 vs. FU2	Z = 2.36 p < 0.05 (S)	Z = 2.85 p < 0.01 (HS)
FU1 vs. FU3	Z = 3.00 p < 0.01 (HS)	Z = 3.34 p < 0.01 (HS)
FU2 vs. FU3	Z = 2.00 p < 0.05 (S)	Z = 2.53 p < 0.05 (S)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; S. = Significant, H.S. =Highly Significant

The Table No. 7B shows statistical comparison by Wilcoxon Signed Rank Test within each group. The comparisons between all the six possible combinations of paired observations were done. The above table also showed that patients of Group II have more radiating pain score as compare to Group I, and maximum reduction of radiating pain score was also seen in Group II (Agni Karma group)

Tenderness-Table No.8A: The mean, standard deviation and statistical comparison of Tenderness between the groups at successive visits:

Observation interval	Tenderness (Mean±SD)		Comparison between the groups by Mann-Whitney test
	Group-I	Group-II	Z and 'p' value
BT	0.22±0.41	0.74±0.75	z = 3.78 p < 0.001 (HS)
FU1	0.12±0.32	0.36±0.59	z = 2.27 p < 0.05 (S)
FU2	0.06±0.23	0.16±0.42	z = 1.34 p > 0.05 (NS)
FU3	0.04±0.19	0.06±0.23	z = 0.45 p > 0.05 (NS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant. Tenderness scores: No pain on palpation=0, Pain occurs on deep palpation=1, Pain occurs on light palpation=2, Patient does not allow to touch the affected part=3.

The Table No. 8A shows the mean values and standard deviation of various grades of tenderness seen among patients in both the groups. The comparison between the groups by Mann-Whitney test along with p values and remarks are also shown in this table. The mean values in Group-1 were 0.22±0.41, 0.12±0.32, 0.06±0.23 and 0.04±0.19 respectively at BT, FU1, FU2 and FU3. The mean values in Group-2 were 0.74±0.75, 0.36±0.60, 0.16±0.42 and 0.06±0.24 respectively at BT, FU1, FU2 and FU3. The statistical comparison of tenderness between the groups at initial visit was highly significant (p<0.001) and at 1st at follow-up statistically significant where as at 2nd and 3rd follow-up it to be statistically not significant (p > 0.05).

Table No.8B: The statistical comparison of difference in mean value of Tenderness before, during and after treatment within the groups by Wilcoxon Signed Rank Test:

Intra Group Comparison	Groups	
	Group-I Z value and 'p' value	Group-II Z value and 'p' value
BT vs. FU1	Z =2.23 P < 0.05 (S)	Z =4.35 P < 0.001 (HS)
BT vs. FU2	Z = 2.82 P < 0.01 (HS)	Z = 4.87 P < 0.001 (HS)
BT vs. FU3	Z = 3.00 P < 0.01 (HS)	Z = 4.78 P < 0.001 (HS)
FU1 vs. FU2	Z = 1.73 p > 0.05 (NS)	Z = 2.88 p < 0.01 (HS)
FU1 vs. FU3	Z = 2.00 p < 0.05 (S)	Z = 3.41 p < 0.01 (HS)
FU2 vs. FU3	Z = 1.00 p > 0.05 (NS)	Z = 1.89 p > 0.05 (NS)

BT=Before Treatment, FU1=1st Follow up, FU2=2nd Follow up, FU3=3rd Follow up; N.S. = Not Significant, H.S. =Highly Significant.

The Table No. 8B shows the statistical comparison within each group by Wilcoxon signed Rank Test as in the case of Tenderness scale, the comparison between FU2 and FU3 was not statistically significant in both the groups while all other pairs showed highly significant differences. Thus it is seen that Tenderness in general got reduced by two weeks in majority of patients.

Summary and Conclusion: Agni Karma is a well-established therapy practiced for various surgical and medical diseases since Samhita period. The present study was conducted to prove its efficacy. It is a randomized controlled clinical study on 100 patients suffering from sandhivata-Arthritis.

A conventional method of Agni Karma practice was adopted in Group-II. The classical steps of *poorvakarma*, *pradhanakarma* and *paschatkarma* were followed. The *poorvakarma* involved preparation of patient and assembling the required drugs and equipment. The *pradhanakarma* involved obtaining *samayak twak dagdha lakshana* by the application of *tapta panchadhatu shalaka*. The *paschatkarma* involved care of *vrana* by application of *Ghritkumari* pulp, dusting of *Yastimadhu churna* and bandage followed by advice on post therapy regimen. The patients of both groups had similar age, height and weight distribution. The distribution of gender and various professions were also similar in both groups. The statistical analysis of pain assessment criteria was done by finding the mean of the grades assigned to the patients.

It was observed that patients had significant pain relief in both groups on VAS scoring system. But pain relief was rapid in Agni Karma groups.

It was observed that patients had significant improvement on Karnofsky's performance scale and adequate improvement occurred by two weeks of treatment. Here again the patients of Agni Karma groups had quicker response to therapy.

It was observed that pain felt as pricking sensation was equally amenable to both lines of treatment. Both line of treatments were highly effective in controlling pricking sensation and adequate relief occurred by two weeks of treatment.

It was observed that both lines of treatment were equally and highly effective on the parameter of controlling radiation of pain.

It was observed that the incidence of tenderness was minimal in both groups. But the response of treatments was similar and adequate relief occurred by two weeks of treatment.

CONCLUSION: On the basis of above observations on patients treated over a period of three weeks, it can be concluded that –

The procedure Agni Karma therapy and Dashmool Ghanvati had analgesic (Vedanahara) and anti-inflammatory (Shothahara) properties.

Agni Karma therapy is a simple modality of non-drug therapy and provides quick control of acute exacerbations of chronic pain.

Neither the Agni Karma procedure nor Indigenous Compound had any adverse effect on vitals of patient including cardiac rate, respiratory rate, oxygen saturation, blood pressure etc.

Neither the Agni Karma procedure nor Indigenous Compound had any others adverse effect..

Further studies may also be carried out to explore the safety of Agni Karma and Indigenous Compound in chronic pain with common concomitant systemic diseases among geriatric patients.

REFERENCES:

- Agnivesha, Shastri Rajeshwardatta, editor. Charaka Samhita Purvardh Commentary of Sastri Kasinatha, Chikitsa Sthana, Varanasi by Chaukhamba Bharati Academy, 2009, Pp. 1024.
- Agnivesha, Shastri Rajeshwardatta, editor. Charaka Samhita Uttrardh Commentary of Sastri Kasinatha, Chikitsa Sthana, Varanasi by Chaukhamba Bharati Academy, 2009, Pp. 1208.
- Cassel EJ : The nature of suffering and the goals of medicine. N-Engl. J. Med 306: 639, 1982.
- Chronic Pain Association of Canada: Pain Facts. Available at www.chronicpaincanada.com
- Ghosh, R.K. et al., Clinical studies on the indigenous compound (Nirgundi, Eranda and Bala) as analgesic in post operative pain, 1995.
- Goldstein Dtt, Ellis J, Brown R, et al: Recommendations for improved acute pain services : Canadian collaborative acute pain initiative. Pain Res Manag 9: 123, 2004.
- Hospice and Palliative Nurses Assoc. : Position statement: Providing opioids at the end of life, 2004 Available at www.hpna.org/positions.Asp.
- Jaiswal RK, et al. : Comparative Study on Post-operative analgesics and anti-inflammatory activity of Rasna and Parijat as Premedicant. M.D. (Ay.) Thesis, Varanasi, IMS, BHU, 2001.
- Jaiswal, R.K., Evaluation of Dashmool Ghanvati as premedicant, Ph.D. Thesis, IMS, BHU, 2008.
- Kamal Narayan, Parasurgical Measures in the Management of Cancer with particular reference to Agni Karma. MD (Ay) Thesis, 1991.
- Keefe FJ, Rumble ME, Scipio CD et al: Psychological aspects of severe pain: Current state of the science J. Pain 19: 225, 2003.

- Lewis, et al : Medical Surgical Nursing, 7thed. Mosby Elsevier, 2006, Pp- 1867: 125-130.
- Maroney CL, Litke A, Fischberg D et al: Acceptability of severe pain among hospitalized adults J Palliative Med 7: 443, 2004.
- Miller's Anesthesia, 6th Ed., ISBN-0-8089-2338-2.
- Myers CD, Riley JL, Robinson ME, Psychosocial contributions to sex-correlated differences in pain, Clin J Pain 19: 225, 2003.
- Pai, A. Evaluation of Rasna as premedicant under Sarvadhahik Sangyahan, M.D. (Ay.) Thesis, IMS, BHU, 1999.
- Pande, D.N., Poorvakarma in relation to anesthesia, M.D. (Ay.) Thesis, IMS, BHU, Varanasi, 1986.
- Pandey PS, et al., Studies on indigenous compound (Nirgundi, Erandmool and Bhringaraj) as an analgesic. M.S. (Ay.) Thesis, Varanasi, IMS, BHU, 1997.
- Poman DK, Critical Analysis of Agnikarma in Pain Management. M.S. (Ay.) Thesis. Varanasi, IMS, BHU, 2009.
- Rao PN, Role of Agni Karma in Mlignancy. Ph D Thesis, 1994.
- Rege PS, Scientific Method, 3rd ed., 1955, Pp-140, p-9,77
- Roy, A.K., Role of Shigr Ghsatva under Sarvadhahik Sangyahan (GA) a clinical study, M.S. (Ay.) Thesis, IMS, BHU, 2005.
- S. Bhatt, Comparative study of indigenous compound (Nirgundi, Rasna, and Parijat) with Agni Karma for management of pain, Ph.D. Thesis, BHU, Varanasi, 2012.
- Sah GS, et al.. Study of Parijat in Post-operative pain under Sub-Arachnoid Block. M.D. (Ay.) Thesis, Varanasi, IMS, BHU, 1998.
- Sehgal, Umesh. M.S. Thesis, Jamnagar, Gujarat, 2007.
- Singh Rajesh, et al., Biochemical studies of Parijat Ghsatwa during and after intrathecal anesthesia. M.D. (Ay.) Thesis, Varanasi, IMS, BHU, 2003.
- Singh SK, et al., Study of Parijat as premedicant under Sarvadhahik Sangyahan. M.D. (Ay.) Thesis, Varanasi, IMS, BHU, 1999.
- Stewart RF, Ricci JA, Chee E, et al., Lost productive time and cost due to common pain conditions in the US workforce. *JAMA*, 2003; 290: 2443.
- Sushruta. Acharaya Narayana Ram, Editor. Sushruta Samhita Moolamaatra; Sootrasthana, Varanasi, by Chaukhambha Krishnadas Academy, 2009, Pp-1008.
- Sushruta. Acharaya Yadavji Trikamji, Editor. Sushruta Samhita with Nibandhasangraha Com of Dalhanacarya and Nyaya Candrika Panjika of Gayadas Acharaya on Nidanasthana; Sutrasthana, Chikitsasthana, Sharirasthana, Nidanasthana, Uttarantra, Varanasi by Chaukhambha Orientalia, 2005, Pp-824
- Teno J.M., Clarridge BR, Casey V et al.: Family perspectives on end-of-life care at the last place of care, *JAMA* 291: 88, 2004.
- Vagbhata, Harishastri Paradkar, Editor. Astanga Hridayem with Commentaries of Arundatta and of Hemadri, Published by Chaukhamba Orientalia, Varanasi, Ninth Ed., 2005, Pp. 956.
- Vagbhata, Sharma Shiv Prasad, Editor. Astanga Sangraha with Shashilekha Commentary, Published by Chaukhamba Sanskrit Series Office, Varanasi. ISBN: 81-7080-186-9, Pp. 965.
- Vagbhatacharya. Astanga Hridaya. Shastri Kashinath, Varanasi, Choukhambha Orientalia, 1998, Pp-956.
- Wall, P.D., Melzack, R. (eds.), Textbook of Pain, 3rd ed., New York, Churchill, Livingstone, 1994.
- Won AB, Lapauc KL, Vallow S, et al: Persistent non-malignant pain and analgesic prescribing patterns in elderly nursing home residents. *J. Am Ceviatr Soc* 52: 867, 2004.

THERAPEUTIC USE OF ACUPUNCTURE AND ITS MECHANISM OF ACTION

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Abstract: Acupuncture have been used for pain with various mental and psychosomatic disorders. Acupuncture effectively induce relaxation by affecting the emotional states and evoking pleasant sensations. Gentle manipulation of a fine acupuncture needle could produce a subjective comfortable perception.. The pleasantness of acupuncture treatments has been ignored because it has been assumed that these procedures are nociception. Increased blood flow caused by acupuncture flush out the algesic or sensitizing substances and induce pain relief.

Keyword: Acupuncture, PONV, Zusanli and hyperreflexia.

Introduction: Effects of acupuncture on gastrointestinal function has recognized the therapeutic value of acupuncture. Postoperative nausea and vomiting (PONV) and nausea of pregnancy were listed as digestive symptoms that could be treated by acupuncture. In Japan, the efficacy of acupuncture and moxibustion on digestive disorders has been well recognized clinically, although scientific research on acupuncture for digestive disorders has begun only recently. Gastric juice secretion and basal acid output were suppressed with acupuncture to the lower extremities but not to the trunk in humans. Effects of acupuncture on gastrointestinal motility in general gastric emptying, postoperative nausea and vomiting, motion sickness, anorexia nervosa, functional dyspepsia, irritable bowel syndrome (IBS), and diabetic gastroparesis.

Gastric dysrhythmias include tachygastria, bradygastria, arrhythmias, hyperarrhythmia, and bradyarrhythmia treated by acupuncture. The most common acupuncture points for treating gastrointestinal symptoms are the Neiguan (PC6) and Zusanli points (ST36) effects of acupuncture on the EGG and analyzed the underlying neurological mechanisms pharmacologically. Effects of acupuncture on urological disorders acupuncture at bilateral BL33 acupuncture point for overactive bladder; and they demonstrated that urinary incontinence and urgency caused by overactive or unstable bladder, along with improvement in urodynamic measurements such as bladder capacity, were improved. In urodynamic measurements of spinal cord injured patients, acupuncture could be another valuable therapeutic alternative for the treatment of urinary incontinence caused by detrusor hyperreflexia. In patients with benign prostatic hyperplasia (BPH), acupuncture stimulation to bilateral BL33 was effective for BPH (stage I) patients. trazodone (anti-depressant) alone had no positive effect, erectile dysfunction was markedly improved in the patient treated with acupuncture to BL33

The mechanisms of action of acupuncture The endogenous opioid-mediated mechanisms of acupuncture as used in China are well understood, but these are only one component of all mechanisms of acupuncture. These emphasize analgesic action of Acupuncture to various sensory inputs to the pain inhibition mechanisms. In acupuncture therapy, careful detection of the acupuncture points and fine needling technique with comfortable subjective sensation are considered important. The role of polymodal receptors (PMR) has been stressed based on the facts that PMRs are responsive to acupuncture stimuli, the characteristics of acupuncture points

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and trigger points are similar to those of sensitized PMRs. Acupuncture is also known to affect neurons in the brain reward systems and blood flow in skin, muscle, and nerve. Axon reflexes mediated by PMRs might be a possible mechanism for the immediate action of acupuncture .

MECHANISM OF ACTION:

Theory 1

Receptors and afferent fibers responsible for modes of action of acupuncture It is of fundamental importance to identify the receptors and afferent fibers that are specifically involved in the mechanisms of acupuncture .

It is very difficult to determine the receptors and afferent fibers involved because various mechanoreceptors could be activated by acupuncture for example. Single unit recordings were made in rats responding to manual acupuncture (MA) stimulation and every somatosensory afferent (groups I, II, III, and IV) was activated (4). The group I and II afferents, the best responders to MA, did not respond to the thermal stimulation of moxibustion. Thermal and heat receptors responded to moxibustion but not to mechanical stimulation. In the early stages of investigation of the peripheral mechanisms of acupuncture action, the thick A-beta afferent fiber received much attention because the analgesic action of acupuncture stimulation was the major issue to be clarified and the gate control hypothesis was an attractive theoretical basis for analgesic action (5). Activation of thick afferent fibers inhibits pain signal transmission at the spinal cord. This analgesic action of thick fibers was confirmed clinically. A procedure for pain relief based on the gate control theory was called transcutaneous electrical nerve stimulation (TENS) (6). If we assume that EA is a kind of nerve stimulation procedure, it is very easy to explain the physiological mechanism of EAA. It is important to note that acupuncture and moxibustion have been used clinically for over 2000 years, and each is based on the same meridian theory. However thick fiber mechanoreceptors can not be activated by thermal stimulations such as moxibustion. Moreover an important fact was discovered in the survey of the ancient Chinese tomb called Ma-Wang-Dui. The medical literature found in the tomb clearly demonstrated that the meridian concepts were established based on moxibustion therapy and that no acupuncture treatment existed when the meridian concept was born . Therefore we should consider candidate nerves that are activated by moxibustion as being the primary peripheral mediators of both procedures. We could not completely exclude the roles of mechanoreceptors in the production of analgesia via gate control mechanisms; however, it should be stressed that our understanding of the fundamental mechanism of acupuncture and moxibustion is based on moxibustion-sensitive inputs.

Theory 2 A specific sensation elicited by acupuncture stimulation called “de-qi” When acupuncture is applied to patients, a specific sensation called “de-qi” is induced. This de-qi sensation is thought to be essential for the effects of acupuncture ; acupuncture points completely abolished the de-qi induced by acupuncture manipulation, but the de-qi was not abolished by anesthetizing a cutaneous nerve. To clarify the characteristics of afferent fiber receptors responsible for the production of the de-qi sensation, microneurography was used. Recordings of nerve discharges in human subjects make it possible to investigate the quality of subjective sensation and identify the responsible afferent fiber receptors. A close correlation

between a particular de-qi sensation and the excitation of thin afferent fibers responsive to bradykinin (BK) . Discharges of PMRs in deep tissue and a de-qi sensation were provoked simultaneously and the frequencies of discharges were well correlated with the intensities of de-qi sensations.

Theory 3 Characteristics of acupuncture points and tender /trigger points The fundamental problem in acupuncture research is to clarify the nature of so-called acupuncture points. The fact that there is no specific structure or distribution of acupuncture points to various tissues on the whole body is important . In Chinese traditional textbooks, the “ah-shi-point”, where the patient shouts “oh painful” when the acupuncture needle hits the point, was described as a kind of acupuncture point. That is, tenderness is one of the clearest physiological characters of acupuncture points. Our previous survey also clearly demonstrated that tender points as well as acupuncture points were used in clinical treatment by well-trained acupuncturists. Trigger points are characterized by their tenderness to applied pressure, tenderness at the restricted point on the palpable band, and their induction of specific referred pain phenomena similar to that which the subject has suffered . There is a very interesting concordance of the location of the acupuncture points and the trigger point. The concept of the trigger points was established from the modern Western medical treatment of pain without any knowledge of traditional Chinese medicine. These similarities of location of trigger and /or tender points to those of acupuncture points suggest that a common pathophysiological mechanism might exist.

Theory 4 Possible role of polymodal receptors in acupuncture The PMRs are thought to be a part of the modes of action of acupuncture because they can be activated by mechanical (acupuncture) stimuli, and they are responsive to chemical substances such as BK. The PMRs have a relatively low threshold and wide-dynamic response range, and they are easily sensitized. Their thresholds are decreased and response magnitudes increased by chemical substances such as PGs, histamine, and BK. The PMRs have effector functions. They can release neuropeptides such as substance P , calcitonin gene-related peptide , somatostatin , and vasoactive intestinal polypeptide from their receptor terminals, and these neuropeptides induce inflammatory responses through receptors in blood vessels. It is well known that acupuncture stimulations provoke flare and wheal responses around the site of stimulation. These findings suggest that local inflammatory responses such as flare and wheal induced by acupuncture stimulations might be the results of release of neuropeptides due to the antidromic excitation of the PMR as an axon reflex.

The PMRs are activated by acupuncture a major functional feature of acupuncture points is tenderness. , the existence of sensitized PMRs in the acupuncture/trigger points may provide the major functional basis for understanding the clinical significance of acupuncture points in acupuncture treatments. The morphological characteristics of acupuncture points are also in agreement with those of the PMRs. The concept of the meridian system has been considered as an essential theoretical basis of acupuncture therapy; . This meridian phenomenon seems to be a sensory event in the CNS, and it is similar to the specific referred pain pattern elicited by trigger point stimulation.

Theory 5 Analgesia induced by selective activation of thin afferent fibers and PMRs Selective activation of A-delta fibers in peripheral nerves, BK is a potent chemical stimulant for the PMR the hypothesis that BK- and heat-sensitive receptors, presumably the PMR, provide peripheral inputs for the activation of endogenous pain inhibitory systems.

Theory 6 Analgesic effects produced by, acupuncture, Activation of the myelinated thick afferent fibers induces an analgesic effect that can be explained by the gate control theory and can be implemented clinically. The gate control theory that demonstrated the important role of thick afferent fibers (A-beta fibers). It is true that activation of thick afferent fibers through a pair of acupuncture needles induces analgesic effects. Regarding the de-qi sensation, microneurogram studies confirmed that the numb sensation was provoked by activation of A-beta fibers and that there are thick nerve bundles under the acupuncture points

Theory 7 The opioid mediated analgesic mechanism of acupuncture has been established.

References:

- 1 Research Group of Acupuncture Anesthesia, PMC. Effect of acupuncture on pain threshold of human skin. *Chin Med J.* 1973;3:151–158.
 - 2 Han JS. Acupuncture and endorphins. *Neurosci Lett.* 2004;361: 258–261.
 - 3 NIH consensus development statement: Acupuncture, 1997.
 - 4 Kagitani F, Uchida S, Hotta H, Aikawa Y. Manual acupuncture needle stimulation of the rat hindlimb activates groups I, II, III and IV single afferent nerve fibers in the dorsal spinal roots. *Jpn J Physiol.* 2005;55:149–155.
 - 5 Melzack R, Wall PD. Pain mechanisms: a new theory. *Science.* 1965;150:971–979.
 - 6 Wall PD, Sweet WH. Temporary abolition of pain in man. *Science.* 1967;155:108–109.
 - 7 Harper D. Early Chinese medical literature. The Mawangdui medical manuscripts. 1st ed. London: Kegan Paul International; 1998.
 - 8 Chiang CY, Chang CT, Chu HL, Yang LF. Peripheral afferent pathway for acupuncture analgesia. *Sci Sinica.* 1973;16:210–
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