SANGYAHARAN SHODH

Special Issue : Dedicated to Late Dr. S. B. Pande, Patron, AAIM

August 2007 **Volume 10, Number 2**

संज्ञाहरण शोध

An Official Journal of

BHARATIYA SANGYAHARAK ASSOCIATION

(Association of Anaesthetists of Indian Medicine)

Please encourage others to be new members

Bharatiya Sangyaharak Association (A.A.I.M.)

Postal Address

Operation Theatre Block, Indian Medicine, S.S. Hospital, Banaras Hindu University, Varanasi – 221 005.

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Hon. Secretary
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SANGYAHARAN SHODH

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SANGYAHARAN SHODH

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EDITORIAL

Dear colleagues! I hope that we will meet on 17-18th Nov. 2007 at DAVANGERE (KARNATAKA) to witness our XIth National conference. Our Association is going on smoothly on the path of development. C.C.I.M. is now taking keen interest towards us and want to create more P.G. centers of sangyaharan specialty but unfortunately we have no adequate specialists to fulfill the need of the country. Therefore it is the best time to start P.G. course in Sangyaharan at Paprola, Pune and Udupi with at least 5 seats. At the same time we should start P.G. course in Chhaya and Vikiran also so that the surgical disciplines be revived with full strength. Starting of P.G. courses in Sangyaharan and Vikiran will not only improve the services of surgical disciplines but also will be helpful to the several specialties of Ayurvedic medicine e.g. Kay Chikitsa, Manas Roga, Panch Karma & Bal Roga. One thing is to be kept in mind that the P.G. of these disciplines should be well equipped with knowledge of Ayurvedic principles as well as updated in Modern Medicine and Technologies. The skilled, well-trained and well-taught Ayurvedic Postgraduates will only achieve our goal and will lead in future. Therefore every institution should first of all try to maintain the teaching and training standard as per C.C.I.M. rule. There should be no relaxation in criteria of selection of teachers at P.G. label or standard of teaching departments. There should be a provision to appoint contractual teachers holding degree of Modern Medicine (M.B.B.S., M.D.) - only in the new specialties like Sangyaharan and Vikiran, only till the Post Graduates of these specialties is available from Ayurvedic Streams.

At last I will like to congratulate the Authorities of Banaras Hindu University, Varanasi for starting 2 years P.G. Diploma Course in Chhaya Avum Vikiran, Kshar Karma, Prasaw Vigyan, Neonatology etc. It will fulfill the demand of poor population of our country; at the same time will serve the Ayurvedic institutions.

Jai Hind, Jai Ayurved, Jai Sangyaharan,

Association of Anesthesiologists of Indian Medicine (Maharashtra State Branch)

ANNUAL REPORT 2005-06

During the 2005-06 year following executive committee was functioning.

- **Executive Committee –**
  President – Dr. S.V. Marathe, Vice President – Dr. R.K. Gupta, Gen. Secretary – Dr. V.N. Shendye, Treasurer – Dr. N.V. Borse, Jt. Secretary – Dr. N.C. Gujrati, S.P. Invitee – Dr. D.P. Puranik, Members – Dr. R.N. Gangal, Dr. N.D. Nalawade, Dr. V.R. Shet, Dr. B.N. Deshpande, Dr. S.B. Patawardhan.
- **Executive Committee Meeting –**
  During this year four Executive Committee Meetings were held. In these meetings discussion and planning of Seminar, Workshop, Conference, and General Body Meeting were done.
- **Activities of the Association –**
  Sangyaharan Day – To observe Sangyaharan Day, Maharashtra State Branch of A.A.I.M. oraganised seminar on 6th Feb. 2006 at Tilak Ayurved Mahavidyalaya, Pune. Dr. Mrs Shobha Vatkar and Dr. Mrs. Shalini Thombare were guest speakers.
  Conference - 9th National conference of the Association was held in Dec. 05 at Brahmapur, Orissa. Members of the State branch participated in the conference and the G.B. meeting of the Association.
  In conference Dr. V.N. Shendye and Dr. N.V. Borse presented their papers.
  "Ashwinou Award" committee declared the award to Dr. R.K. Gupta – Vice President of our branch and he received the Award.
- **Annual General Body Meeting –**
  Annual General body meeting of the branch was called on 6th Feb 2006 Minutes of last Annual General Body Meeting held on (6th Feb 2005), Annual Report of the branch (2004-05), Audited statement of accounts (2004-05) were presented by Dr. V.N. Shendye and were confirmed and passed in meeting.
  Election for new Executive Committee of the branch was held in the G.B. Meeting. Members elected the new Executive Committee unopposed.

New Executive Committee came in the existence immediately as follow :
President – Dr. R.K. Gupta, Sawantwadi, Vice President – Dr. N.V. Gujrati, Gen. Secretary – Dr. V.N. Shendye ,Jt. Secretary – Dr. S.B. Gawari, Shirur, Treasurer – Dr. N.V. Borse,
Members of the committee were nominated as follows-
Dr. R.N. Gangal, Dr. N.D. Nalawade, Dr. B.N. Deshpande, Dr. S.P. Kadadekar, Dr. V.B.Kanade.Dr. S.V. marathe – Immediate Past President, Dr. D.P. Puranik – Special Invitee
Achievements – Dr. R.K. Gupta received precious "Ashwinou Award"

Feelings of Gen. Secretary –

I am very much thankful to all members of the branch for giving me a good cooperation. I am very much thankful to all members for giving me a support and elected me to work as General Secretary of the branch. I am thankful to Patron-Dr. A.B. Limaye, President Dr. S.V. Marathe, Prof. Dr. D.P. Puranik for their guidance. I am thankful to all office bearers for their co-operation.

Dr. V.N. Shendye, Gen. Secretary, AAIM – M.S.B.

Association of Anesthesiologists of Indian Medicine (Maharashtra State Branch)

Minutes of Annual General Body Meeting 6th Feb 2006

Annual general body Meeting of Association of Anesthetists of Indian Medicine Maharashtra State Branch was called on 6th Feb 2006 at NIMA hall Tilak Ayurved College, Pune, at 3.30 P.M. with prior notice.

Following members were present for the meeting:

Dr. A.B. Lamaye, Dr. D.P. Puranik, Dr. V.N. Shendye, Dr. N.V. Borse Dr. N.C. Gujrati, Dr. S.B. Gawari, Dr. R.N. Gangal, Dr. V.B. Kanade, Dr. S.D. Nalawade.

Gen. Secretary Dr. V.N. Shendye welcomes all members. President Dr. S.V. Marathe could not attend the meeting therefore, Dr. A.B. Limaye patron of the branch was requested to preside over the meeting and with his permission meeting was reasumed.

Dr. V.N. Shendye read the notice of the meeting.

Sub. 1: To read and confirm the minutes of last Annual General Body Meeting held on 6th Feb 2005.

Dr. V.N. Shendye circulated the copies of the minutes, audited statement and annual report to all members.

Dr. V.N. Shendye read the minutes of the last Annual General Body meeting held on 6th Feb. 2005. After some corrections minutes were passed unanimously.

Resolution 1 – This General Body Meeting of A.A.I.M. – M.S.B. held on 6th Feb 05 here by resolves to confirm the minutes of last General body Meeting held on 6th Feb 05.

Proposed By – Dr. S.B. Gawari

Seconded By - Dr. R.N. Gangal

Sub 2 – To present and confirm Annual Report of the A.A.I.M. M.S.B. for the year 2004-05.

Dr. V.N. Shendye read the Annual report. After correction the house confirmed annual report.

Resolution 2 – This General Body Meeting A.A.I.M. M.S.B. held on 6th Feb.06 hereby resolves to approve the Annual Report of the Branch for 2004-05.

Proposed by: Dr. N.C. Gujarati

Seconded by: Dr. S.B. Gawari

Sub 3: To read and adopt Audited Statement of Accounts for the year 2004-05.

Treasurer Dr. N.V. Borse read the Audited Statement of Accounts for 2004-05. The house adopted the statement and it was decided to send it to Central Council.

Resolution 3: This General Body Meeting of A.A.I.M. M.S.B. held on 6th Feb 06 hereby resolves to confirm and adopt the Audited Statement of accounts of the Branch for the year 2004-05.

Proposed By –Dr. R.N. Gangal Seconded By - Dr. S.B. Gawari

Sub 4: Discussion on Resolution or Questions if any.

Dr. V.N. Shendye presented a Resolution and Questions raised by Dr. V.B. Kanade.

The resolution was about 50% concession in conference delegate fees for members of the association.

After elaborate discussion, Dr. Kanade V.B. withdrew the resolution.

Dr. V.B. Kanade's questions were related to anti quackery bill and proposed anti tubectomy or P.N.D.T. on his question proper discussion was held and answered as follows:-

The association is backing the movement of Anti Quackery bill with a correction, as ISM graduates will not be included in Quakers.

About anti tubectomy and P.N.D.T. Act, Association is against the proposed bill and strongly advocate that ISM faculty who are Post Graduates in the concerned subject are well trained in the authentic institutes so they are capable to do the operations and should not be prohibited to do the same.

Sub 5 – Appointment of auditor and fixation of honorarium.

In the meeting it was decided to continue M/s A.H. Joshi and Co. to conduct the audit of the branch. It was also decided to appoint Mr. Prakash Kulkarni for writing of accounts & the honorarium will be the same or can be increased on demand.

Proposed by: Dr. V.B. Kanade Seconded by: Dr. S.B. Gawari

Sub 6 –Information about activities.

Dr. V.N. Shendye informed the house about activities of the branch. He informed about 9th National Conference of A.A.I.M. held at Gopalpur near Brahmapur, Orissa. He informed that Dr. V.N. Shendye and Dr. N.V. Borse read the papers. Dr. R.K. Gupta received the Ashwinou Award in the conference.

He also informed that General Body Meeting at Central Council of the association was adjourned due to want of quorum.

After discussion the resolution was passed.

Resolution 5 – This General Body Meeting of A.A.I.M. held on 6th Feb. 06 resolves that National conference should be held at big city which will be easier to reach and having good facilities for the conference.

Proposed by: Dr. R.N. Gangal

Seconded by: Dr. N.D. Nalawade

Sub 7 – Election of executive committee for the period of 2006 to 2008.

Election for the executive committee of the branch was held in this meeting. The election was held for the posts of president, vice president, Gen. Secretary, Treasurer, Jt. Secretary. The executive body was elected unopposed as follows.

President – Dr. R.K. Gupta, Vice President – Dr. N.C. Gujrati, Gen.

Secretary – Dr. V.N. Shendye, Jt. Seretary – Dr. S.B. Gawari, Treasurer – Dr. N.V. Borse

Member of the new committee were nominated as below:

Dr. R.N. Gangal, Dr. N.D. Nalawade, Dr. B.N. Deshpande, Dr. S.P. Kadadekar, Dr. V.B. Kanade, Dr. S.V. Marathe was included as immediate post president and Dr. D.P. Puranik as special invitee.

Dr. D.P. Puranik welcome to all new members of the committee.

Dr. A.B. Limaye did felicitation of new executive committee members with floral bouquet.

Sub 8 -Timely subjects with permission of chair.

There was no subject to discuss.

Dr. A.B. Limaye delivered a presidential Speech.

Dr. V.N. Shendye proposed vote of thanks and meeting was concluded.

Dr. V.N. Shendye,
Gen. Secretary, AAIM – M.S.B.

Association of Anesthesiologists of Indian Medicine

Minutes of the G.B. Meeting 06.02.2007

Venue: K.N. Udupa Auditorium ,B.H.U., Varanasi

Date & Time: 06.02.2007 at 5.00 PM

A meeting of General body of AAIM C.C. was called on 06.02.07 at 5.00 PM. The meeting was adjourned up to 5.30 PM. due to late scientific session of Xth National Conference. Meeting resumed at 5.30 PM under Chairmanship of the President **-Dr. D.N. Pande.**

The following agendas were placed on the table for discussion and approval of the General body. The following members attended the meeting (Signatures in attendance Register).

AGENDA 1: To condole the sad demise of Patron Dr. S.B. Pande on 15 Oct. 2006.

RESOLUTION: A silence of two minutes was observed on the sad demise of Patron Dr. S.B. Pande and it was resolved to send condolence letter to the family of Dr. S.B. Pande

AGENDA 2: President 's Opening Remarks.

RESOLUTION: Secretary- Dr. S. Sharma requested to the President for his opening Remarks and Dr. D.N. Pande, President AAIM C.C. expressed his views and vision in his opening remarks which were accepted by the house unanimously.

AGENDA 3: Confirmation of the minutes of the previous G.B. Meeting dated 03.04.2006.

RESOLUTION: **The minutes of the previous G.B. Meeting dated 03.04.06 were read by the secretary, which was accepted unanimously.**

Proposed by – Dr. Raman Singh Seconded by – Dr. Jagdish Singh

AGENDA 4: Accounts of central council & branches.

RESOLUTION: The accounts of Central Council were presented by Dr. R. Asthana, (Treasurer), U.P. State Branch by Dr. P.K. Sharma, President U. P. State Branch, A. A. I. M. & Sangyaharan Shodh by Dr. D.N. Pande, President C.C. .The house accepted the accounts unanimously.

Proposed by – Dr. A.K. Dwivedi Seconded by – Dr. Akbar Ali

AGENDA 5: Annual Reports of C.C., Sangyaharan shodh and Branches.

RESOLUTION: Secretary C.C.- Dr. Sanjeev Sharma, U.P. State Branch by Dr. P.K. Sharma and Sangyaharan shodh by Dr. D.N. Pande, presented the annual report of C.C., which were accepted by the house unanimously.

Proposed by – Dr. A. Ali Seconded by – Dr. R.K. Jaiswal

AGENDA 6: Ashwinao Award for the Year 2006.

RESOLUTION: Dr. P.K. Sharma President U.P. State Branch AAIM, proposed the name of Dr. Sanjeev Sharma for Ashwinao Award, 2006 which was accepted by the house unanimously.

Proposed by – Dr. P.K. Sharma Seconded by – Dr. K.K. Pandey

AGENDA 7: Any other Matter with permission of the chair.

A. Next Conference – A Letter from Dr.Satish B. G. from Dawangire was received for holding the XI National Conference at his college, which was accepted by the house.

Proposed by – Dr. S. Bhat Seconded by - Dr. R.K. Gupta

B. International Conference with N.I.M.A., Varanasi.

C. Dr. Jitendra Singh, President NIMA, Varanasi gave a proposal to organize an International Conference with NIMA Varanasi. This was unanimously proposed to join hands with NIMA conference but not as a partner.

Proposed by – Dr. K.K. Pandey Seconded by – Dr. R. Asthana

D. Selection of Patron- **The house unanimously proposed to select Dr. D.P. Puranik, Pune as 'PATRON' of AAIM. C.C.**

Proposed by – Dr. D.N. Pande Seconded by – Dr. K.K. Pandey

E. To consider the letter Dated 22.12.06 of secretary M.S. state Branch.

-The letter of M.S. State Branch dated 22.12.06 was read by the president -Dr. D.N. Pande and it was discussed point wise.

No. 1. Regarding change of name of Association as "Association of Anesthesiologists of Indian Medicin.

It was resolved to send a copy of minutes to the M.S. State Branch for Bank proceedings.

No. 2. Eligibility for membership.

It was resolved unanimously that the amendment made on 06.02.2006 need not to change because there is already a scope to accept the person who is P.G. in Shalya with thesis in Sangyaharan.

No. 3. Circumstances Council executive committee

It was resolved that state branches may reduce or increase the No. Of office bearers as per their requirement for smooth functioning.

No. 4. The house did not accept the Executive Body constitution of C.C. as State strength wise representation.

No. 5. Necessity of attending 3 conferences to be the office bearer of C.C. The matter unanimously referred back.

No. 6. About extension of E.C. tenure

The extension of E.C. will be as per Byelaws.

No. 7. Modification of Amendments in rules and regulation.

It was resolved to follow the guidelines already present in byelaws of the Association.

No. 8. T.A. for Ashwinao Award recepient

The house disagrees to provide any T.A. to the Award recepient.

At the end of the meeting Dr. D.N. Pande proposed vote of thanks to the Secretary organizing committee -Dr. Raman Singh with all his team to hold a successful conference at Varanasi .

Dr. P.K. Sharma President U.P. State Branch Proposed vote of thanks to the chair and thus meeting ended at 7.00 PM.

(Dr. D.N. Pande)
President
A.AIM, C.C.

(Dr. S. Sharma)
Secretary
AAIM, C.C.

Conference Proceeding: 6th – 7th Feb. 2007

Xth National Conference of Association of Anaesthesiologist of Indian Medicine.

Venue: BANARAS HINDU UNIVERSITY, VARANASI

First Day: 6th Feb. 2007 -

Xth National Conference of AAIM was held on 6th – 7th Feb. 2007 at Varanasi. Late Prof. K.N. Udupa Auditorium was the Venue of Ist day conference and Shri Laxin Narayan Marwari Hospital Godoulia was the IInd day conference venue. The first day programme was started at 9.30 am with inauguration of **H.D.U.** in the memory of **Dr. S.B. Pande**, Founder president AAIM by hands of **Prof. Gajendra Singh**, Director, IMS, BHU, Varanasi and inauguration of **U.S.G. unit** in the memory of late Dr. D.K. Rai, M.O. By hands of **Prof. Churamani S. Gopal**-the Medical Superintendent of S.S. Hospital, BHU, Varanasi. The inaugural function of Xth National conference, Sangyaharana Day and Late Dr. S.B. Pande Memorial Ceremony was started at 10.00 AM in the Late Prof. K.N. Udupa Auditorium. **Prof. S. Lale**, Rector, BHU, **Prof. S.S. Kushwaha**, Vice-Chancellor, Kashi Vidyapith University, Varanasi **Prof. S. Churamani Gopal**, Medical Superintendent, S.S. Hospital, BHU, Varanasi, **Shri Kaushalendra Singh** -Mayer, Varanasi, Dr. **D.N. Pande**, President, AAIM-CC and Head, Deptt. of Shalya Shalakya, IMS, BHU, Varanasi, **Dr. S. Sharma**, Secretary, AAIM-CC ,**Dr. Raman Singh** -Org. Sect. and **Dr. P.K Sharma**, President, U.P. State Branch AAIM were on the Dais. First of all the dignitaries were requested to take their seats on the dais by **Dr. K.K. Pandey** -Sr. Vice-President AAIM-CC & Master of ceremony. Garlanding to the bust of MALVIYA JI and Prof. K.N. Udupa was done followed by lighting of lamp Kulgeet was presented by Dr. Tripti, Dr. Megha, Dr. Anjali, Dr. Shivani, Dr. Vijai Laxmi and Dr. Manjari. Welcome address was delivered by**Dr. D.N. Pande** –CC..A.A.I.M. President. Org. secretary **Dr. Raman Singh** and President U.P. State Branch **Dr. P.K. Sharma** also welcomed the august gathering. Medical Supdt, SS Hospital Prof. S. Churamani Gopal, and Prof. S. Lale, Rector, BHU, addressed and expressed their views and blessings to the members of org. committee. Prof. S.S. Kushwaha, Chief Guest addressed the members of AAIM to serve the society with integrated approach. The entire speaker recalled the memory of Dr. S.B. Pande, founder President of AAIM and paid their salute to the departed soal.

In the memory of Late Dr. S.B. Pande a felicitation was given to Prof. V.N.P. Tripathi-ex-Director, IMS, BHU, Prof. K. Pandey, Emeritus Professor, Deptt. Of Anaesthesiology, Prof. A. Lal, Ex Head, Deptt. Of Anesthesia, IMS and Prof. K. Tripathi, Prof. Of Medicine was also arranged .At this moment message of **Prof. P. Chandra** (Presently at USA) the teacher of Dr. S.B. Pande was read by Dr. K.K. Pandey. The mementos were presented to the Dignitaries. At the end of the function Dr. H.O. Singh ,Secretary, U.P. State Branch Presented Vote of Thanks. A high tea was served to all the guests and delegates.

11.30 AM – 12.00 Noons: Late Dr. S.B. Pande Memorial Oration

The scientific session were hold as below- First scientific session was reported by the reportier Dr. S. Sharma, Secretary CC as below:

First Scientific Session Report: By Dr. Sanjeev Sharma

स्व० डा० शशिभूषण पाण्डे स्मृति व्याख्यान

व्याख्याता – प्रो० के० पाण्डे, Emeritus Prof. & Ex. HOD, Deptt. of Anaesthesiology IMS, BHU. Varanasi

चेयरमैन – प्रो० अकरम लाल, Ex. HOD, Deptt. of Anaesthesiolgy IMS, BHU. Varanasi

को चेयरमैन – प्रो० आर० के० गुप्ता,Principal, State Ayurved College,Sawantwari, Maharastra

प्रो० के० पाण्डे ने इस अवसर पर अपने व्यक्तिगत अनुभवों को सभागार में उपस्थित विद्वानों के साथ बाँटा।

उन्होंने बताया कि डा० एस० बी० पान्डे में बहुत सी ऐसी विशेषताए थी जिन्होने उन्हें वास्तव में महान विभूति बना दिया। उनके ही सतत प्रयासों के कारण संज्ञाहरण विभाग की आयुर्वेद संकाय में स्थापना हो सकी। वह बहुत ही स्वाभिमानी पुरूष थे। उन्होंने अपने व्यक्तिगत संबन्धों को कभी अपने व्यक्तिगत लाभ के लिए उपयोग नहीं किया।

उनके भागीरथ प्रयासों से संज्ञाहरण अपने विकसित रूप में उपस्थित हो पाया हैं अब इसे और आगे ले जाने की जिम्मेदारी आज की पीढ़ी पर है, जो इस जिम्मेदारी को उठाने मे सक्षम प्रतीत होती है। इसका उपयोग हर प्रकार की शल्य क्रिया हेतु किया जाना चाहिए तभी इसका और विकास संभव है। इसके लिए आपको ही शल्य चिकित्सकों को प्रेरित करना होगा। इस विभाग का सतत विकास ही उनके प्रति सच्ची श्रद्धाँजली होगी।

चेयरमैन – डा० अकरम लाल ने बताया कि डा० पाण्डे में जोड़ने की अद्‌भूत कला थी। मैंने एक सप्ताह बाद ही विभाग को छोड़ने का निर्णय लिया था जिसको बदलवाने का श्रेय डा० एस० बी० पान्डे को ही जाता है। अन्यथा मै संज्ञाहरण में नही होता।

कोचेयरमैन – डा० आर० के० गुप्ता ने जोड़ा कि आयुर्वेद इतिहास में सुश्रुत के बाद यदि किसी को संज्ञाहरण विभाग को जोड़ने का श्रेय जाता है तो वह डा० एस० बी० पान्डे जी को ही जाता है। इस कारण से उन्हें महान एवं अवतारी पुरूष के रूप में सदैव याद किया जायेगा।

Second Scientific Session: 12.00 Noon to 2.oo PM

Late Pt. R.A. Pande Memorial Best Paper contest

Session – 12 Paper were presented in this Session.

Dr. R.K Jaiswal, M.O. Anaesthesia, I.M. Reported

Second scientific was organised under chairmanship of Prof. R.K. Gupta & Co-chairmanship of Dr. Neelam, Reader, Departt. Of Prasuti Tantra.

1st paper was presented by Dr. Gopal Das on "**Enlightment of importance of Anatomy in Ayurveda "**. He pointed out different aspects of Anatomy related to Ayurveda.

K. Silpa presented 2nd paper very nicely & within time on **Role of certain indigenous drugs as antiemetic premedicants**.

3rd paper was present by Dr. Rajeev Singh on **Significance of Nadi Yantra in surgical disorder** he covers Ancient instrument as well as up to Modern Nadi Yantra like laparoscope etc. in his paper.

4th paper was presented by Dr. Awneesh on **Painless Labor .He** mainly pointed out how painless labor is better rather than normal labor .

5th paper was presented by R.J. Thomson on **Eficacy of Rajyapan BASTI in the management of spinal canal stenosis** within time.

6th paper was presented by Chandre Rajani on **Scale for Assessmetn of kampvat as an objective parameters for the clinical study of Kampvata Vis-avis Parkinsonism.**

7th paper was presented by Dr. Vijay Lakshmi Gautam on **Scope of Acupuncture therapy in different deseases.**

8th paper was presented by Dr. Anubha Srivastava on **Clinical importance of Trimarma.**

9th paper was presented by Dr. Satish B.G. on **Death on operation table – Legal aspects.**

10th paper was presented by Dr. Deshraj singh on **Role of Madhya Rasayan in the managemnt of Pepti ulcer.**

11th paper was presented by Dr. D.P. Mishra on **Concept of Poorva-Karma in Sanghyaharan.**

12th paper was presented by Dr. Sunita on **Concept of safe motherhood in Ayurveda.**

Third Scientific Session: Late Prof. B.G. Ghanekar oration

Dr. A.K. Dwivedi, Reportier of this session reported as below

Chairperson: Dr. A.K. Tripathi, Co-chairperson : Dr. K.K. Pandey, Orator: Dr. S. Bhat

Dr. S. Bhat recolled Late Prof. B.G. Ghanekar & paid salute for his noble contributions in Ayurved. Further heexplained about the schedule for I/v fluids in surgical patient. Analyse different type of fluids for surgical patients and their importance. He also described about proper assessment of pre operative patients about details of normal requirement and normal loss of water and electrolyte.

Fourth Scientific Session- Post Lunch Session

Chairman: Prof. D.P. Puranik, Co-chair: Dr. Anil Singh, Reportier: Dr. Anand Chaudhory
Dr. Anand Chaudhary, the Reportier of the session reported as below:
Workshop on CCPR was demonstrated by- Dr. K.K. Pandey & Dr. R.K. Jaiswal
Very useful live demonstration was presented and was appreciated.
Dr. K.K. Pandey started with welcome to chair and delegates.

Panel Discussion:

Chair: Dr. S. Bhat, Co-Chair: D. S.S. Mishra, Reportier: Dr. Manoj Kumar

The panel discussion on **Scope of Integrated Medical Education** was organised under the following experts Pannalists.

1. Dr. Puranik D.P.
2. Dr. D.N. Pande
3. Dr. K.K. Pandey
4. Dr. Sanjeev Sharma
5. Dr. Jitendra Singh
6. Dr. R.K. Jaiswal

Dr. S. Bhatt initiated the discussion. Dr. Bhat. Invited questions from audience.
What is the meaning of integration? What is the need of integration?
A very good discussion was occurred and finaly decided that integration is useful for our country.

Second Day: - 7th Feb. 2007

Prof. P.J. Deshpandey memorial Oration.

Chairperson: Prof. K. Pandey, Co-Chair: Dr. S. Gopal CMO, Reportier - Dr. L. Singh

Orator: Dr. Raman Singh,

The Session was started by **Prof. P.J. Deshpandey memorial Oration**. Dr. Raman Singh told about Prof. P.J. Desh Pandey followed by Lecture on Nadi Yantra, He also elaborated modern history of endocopy along with principle of Nadiyantra and integrated approache.
In last Prof. K. Pandey concluded the session with remark of thanks.

Validictory Function:

Validictory was hold before lunch when Prof. D.P. Puranik, Prof. K. Pandey, Dr. D.N. Pande, Dr. Raman Singh, Dr. S. Sharma and Dr. R.K. Gupta were on the Dias. Best paper award was presented and dignitaries on the Dias were felicitated. Dr. D.N. Pande expressed his obligation to the CMO of Marvari Hospital and organising body for the success of the conference.

Prepared by: Dr. D.N. Pande, President C.C.A.A.I.M.

Legal Protection to Integrated Practitioners

Dr. D. N. Pande, Head, Department of Shalya Tantra, I. M. S., B. H. U., VARANASI

Taken from: Dr. J.B. Naik Memorial Medico – Legal Cell

THE GIST OF STUDY REPORT SUBMITTED BY THE NATIONAL LAW SCHOOL IN THE LIGHT OF SUPREME COURT JUDGEMENT ON MUKTHIAR CHAND

Following questions were posed to the National Law School:

1. What is the purport of Apex Court's observation in Mukhtiar Chand & Others case that the right to prescribe drugs of a system of medicine would be synonymous with the right to practice a system of medicine and in that sense the right to prescribe a allopathic drugs cannot be fully divorced form the claim to practice allopathic medicine.
2. The Apex Court judgment in Mukhtiar Chand's case allows medical practitioners of Indian systems to prescribe modern medicines provide their qualifications are recognized by the State Act as sufficient for registration in the State Medical Register. The Judgement is silent with regard to the prescriptioner of Ayurveda, Unoni. Siddha and Homoeopothy medicines by a practitioner of the modern system. In view of the apex Court's judgment In Poonam Verma' case. Can a practitioner of Allopathic system prescribe cinedian system of Medicine?
3. Are the provisions of the four Central Acts viz. Indian Medical Council Act? 1956; Indian Medicine Certral Council Act., 1970; Homoeopathic Central Council Act, 1973 and Drugs and Cosmetics Act. 1940 harmonious and adequate to regulate practice of various systems of medicines is there any legislative vacuum in this area?
4. Would it not be more prudent to categorize certain medicines of various systems, which can be prescribed by qualified practitioners of various systems while the qualified practitioners of that system alone may prescribe other medicines?
5. The study report submitted by the National Law School. Bangaore has answered the above referral in the following teims:

1. Even under the Indian Medical Council Act, 1956 the recognized medical qualification is sufficient for the purpose of enlisting, but this does not mean that such qualifications are indispensably essential. Parsons holding recognized medical qualification (according to the Indian Medical Council Act) couldn't be dented registration in any of State registers. But the same cannot be insisted upon for registration in any of State registers. But the same cannot be insisted upon for registeration on a State Medical Register. This clearly provides essential space for the concerned State agency to prescribe any other qualifications to enlist a member to practice modern medicine in that State. But without recognized medical qualification no one can insist his/her name be entered into the Register maintained under the Indian Medical Council Act, 1956. So, it can be observed that if any state law relating to registering medical practitioners permits practice of allopathic medicine on the basis of degree in integrated medicines, the bar in Sec. 15 (2) (b) of the 956 Act will not apply.
2. The supreme court in clear words recognized the virus of State agency to recognize any other qualifications other than those enumerated Indian the Indian Medical Council Act, to quality such registrant to practice allopathic medicine. Such competency the State agency will get under the concerned State enactment. There is absolutely no doubt after the Mukhtiar

Chand's decision, the boll is shifted to court of concerned State Governments to prescribe and recognize the qualifications.

3. But, the said judgment was silent upon the prescription of Ayurvedic, Umani, Siddha and Homeopathy medicines by a practitioner of modern medicine. More than Mukhtiar Chand, the case of Poonam Verma has definite bearing upon this question. After the pronouncement of Poonam Warma's decision by the Apex Court many subsequent commernrators' have interpreted the situation, as 'corss prescriptions' is completely disallowed in the Indian situation, and any medical practitioner who adheres to cross prescription' would-be considered as 'quack' and hence liable to be punished. This must be emphasized at the outset that this is rather an exaggeration of the fact. As per the National Law School study, Poonam Verma's case has to be seen in the light of medical negligence and not cross system practices. Very doctor owes to every patient he accepts to treat. "The practitioner must bring to his task a reasonable degree of skill and knowledge. And must exerdse a reasonable degree of care". The prime question befire the Curt in Poonam Verma's case was that 'whether Dr. Ashwin Pate was negligent during his treatment of Mr. Verma'. Dr. Ashwin Patel was qualified homoeopathy doctor. But whether he also had some competeny in whether he also had some competency in allopathic, was e issue, which Dr. Patel did not conclusively clarify to the Court. Above all, he was not registered as 'medical practitioner' in the Maharashtra State medical register to practice allopathy. Inter-alla, there were other factors contributing to the findings of the Court. Dr. Patel did not feel it necessary to confirm his diagnosis by pathological tests which would have positively established whether Promod Verma was suffering from Typhoid fever or not.

The court clearly found out that Dr. Ashwin Patel was not competent in prescribing allopathic medicines. Obviously, the Court did not speak any thing about the allopathic doctors prescribing the Indian, medicines. It is contended that they're in no ban as such upon the medical practitioners in adhering to cross prescription. Many doctors were consulted during finalizing this paper that opined that, any medical practices are not completely independent from one another. As all of them address the common subject viz. 'human being'. It is common for the allopathic medical practitioners to prescribe many Ayurvedic medicines. While they feel competent because they have learnt that trade from their fellow practitioners anc the system is smoothly assimilated into their so called modern practice.

In the Dr. Mukhtiar Chand, which was the decision of larger bench (and latest to Poonam Verma; si was categoric ruled the there is possibility of corss prescription. The addition of Supreme Court in its verdict stated that "however this does not debar them (practitioners of Inidna medicine) from prescribing or administrating allopathic drugs sold across the counter for "commong ailments" and makes the above contention of this consultancy paper clear.

In the light of the current discussion, it can be stated that provisions of the Indian medical Council Act, 1956; the Indian Medicine Centra Council Act 1970; the Homoeopathic Central Council Act 1973 end the Drugs and Cosmetics Act, 1940 are adequate to regulate practice of various systems of medicine. There is no strong 'vacuum', which needs to be filled up. But it is strongly recommended that an independent study & the entire legislative framework pertaining to both modern and Indian medicine might be taken up to upgrade the standards.

4. It would certainly be more prudent to specify that the qualified practitioners of any system can prescribe certain category c medicines of various systems and another category, which can be prescribed by the qualified practitioners of that system practice, can be summarized as follows:

(a) While modern medicine qualification is essential for registration of practitioner under the Central register practitioners of other systems can be registered under the various State registers provided the relevant State law recognizes qualifications other than the qualification recognized under the Indian Medico Council Act. 1956. The burden of the Mukhtiar Chand judgment of the Apex Court is to keep intact the competence of the State to prescribe any other qualification to enlist a member to practice modern medicine in that State.

(b) A combined reading of Apex Court Judgements of Mukhtior Chand and Poonam Verma cases clearly shows that there is no bar on cross system practice. The Apex Court as only laid down that every practitioner must discharge "a duty of care to every patient he accepts to treat and 'the practitioner must bring to his ' ask reasonable degree of skill and knowledge, and must exercise a reasonable degree of care." A practitioner of Indian system of Medicines who prescribes an allopathic drug to patient must be able to demonstrate that he has the requisite training and skill to prescribe that particular allopathic drug. Similarly, a practitioner of modern system of medicine who prescribes a medicine of Ayurved, Unani, Siddha and Homoeopathy systems must demonstrate a similar degree of competence and familianty when indications and contra indications of that particular medicine which he prescribes. The ones on the practitioners to demonstrate that he have the requisite knowledge and skill to prescribe that medicine and to treat the patient in a particular system.

Dr. J. B. Naik Memorial Medico – Legal Cell Activity Report

It gives me pleasure to present our 2nd activity report. 1st report was presented in February 2006 at Kasargod Conference. More than 6 months have passed and since then lot of activity has taken place. Following is the brief summary of our activity.

Although members of our cell are spread all over the country, those who are at Mumaai meet once in a month at NIMA office to discuss the medico-legal matters. Since the inception of the cell almost 28 monthly meetings have taken place. Minutes of every meeting are maintained and they are available to interested members.

During the last 6 months we have received many letters asking for advice, but it is not always possible for us to satisfy everybody due to paucity of time. We broadly categorize 2 types of cases. One is individual, mostly consumer court cases, which are dealt by our member dr. Nitin Kothale very efficiently. He has given advice to over 1000 cases. It is not possible to go into details of every case.

Second category of cases concern with our association, mostly pertaining to Laws, Acts and Rules. This category of cases is more difficult to deal with. We have observed that the cases are going on almost in every state, but the more worrisome case is from Gujarat, because it has far-reaching implications on the future of ISM graduates as well as our Association. I will give you a brief account of Gujarat Case.

IMA branch of Gujarat has filed a petition in Ahamedabad High court, objecting to the validity of Gujarat Government's GR dated 22/5/2003 allowing integrated practitioners to use modern medicines. Our Association is nowhere in the picture. Subsequently Court sent

notices to Gujarat Govt. twice, giving sufficient time to reply. But the Govt. pleader did not appear and Court granted stay on the concerned GR. Gujarat Government quickly and swiftly withdrew the concern section of that GR. Till this happended we did not know about it. The news appeared in the papers and only then our members from Gujarat contacted us. But the damage is already done.

IMA succeeded in Gujarat and it is possible that they will try the same strategy in other states also. As you know that only 5-6 states (Maharashtra, MP, UP, Karnataka, Punjab, Haryana) have issued GR to allow modern medicines use by ISM graduates. Gujarat has slipped from our hand. On one hand IMA succeeded in getting sty on the GR and on the other hand they succeeded in influencing government officials and politicians in influencing government officials and politicians in Gujarat. Had we been vigilant, we could have contested our case in the High Court. Now that one AISM (Associations of Indian System of Medicine Practitioners) have filed special leave petition to invervence in the Ahmedabad High Court, which has been submitted. We have to decide our course of action.

In MP the situation is even worse. Our practitioners have been raided by BDOs and some dispensaries have been scaled. Our practitioners are deprived from earning their livelihood. This is a blatant violation of our basic right. We must take some urgent steps.

In Karala the state Council of Indian Medicine has raised a legal point by objecting the legal sanctity of the CCIM notification dated 30/10/96. The notification clearly states that modern medical subjects are included in BAMS syllabus and hence BAMS practitioners are entitled to use modern medicines. But the notifications have not been gazetted by the Central Government and hence it has no legal sanctity.

In other states the states the situation is no different. We as Association have to decide some policy to safeguard the future of our practitioners.

Our suggestions are as follows

1) All the branches and individual members should inform our cell before going in to the Court or replying a notice.

2) If at all any case is going on in the Court, please send the relevant documents. That will enable us to get complete information.

3) Please read the journal of NIMA because we publish useful articles in it.

4) Each state branch shall collect the State Government Acts, Rules and notifications related to medical practice and send us a copy of it for our library.

5) Arrange workshops on medico-legal problems to spread awareness among our practitioners. The cell will help you, even by ettending to our place.

6) Each state branch and central council should collect legal funds.

7) So far we have been caught unaware in court cases. We should be vigilant. If you get any information please pass it on. (Each state branch can be check on Internet.)

8) Take preventive steps. Do not hesitate to file caveat in Court, so that Court will hear our side also.

9) Prepare a panel of advocates, who are well conversant with our problems.

10) Counter litigation is to be considered. So fare we are only replying the notices, but we may also file cases against IMA or Government etc. to get our problems addressed. But this has to be done very carefully, otherwise the strategy may boomrang.

11) It is advisable to come through the State Branch or Local Branch of NIMA.

12) We urge all the members to regularly visit the following web sites especially High Court and Supreme Court sites. (Every High Court has their own web site) because they display the time table of hearing of the admitted cases and appeals, whereby we know in advance if there is any case coming for hearing against our interest, and we can intervence in time. That will save lot of inconvenience.

13) Free advice and help will be given by Dr. J.B. Naik Memorial Medico-legal Cell to our member in India.

14) We have decided to invite our Members to write in the Journal of NIMA, about their legal problems or any information on medico-legal matters. We will publish the selected cases.

15) There are some very useful websites. You can surf and get useful website. You can surf and get useful information on Acts, Rules and notification.

www.supremecourtofindia.nic.in
www.allindiareporter.com
www.indiacode.nic.in
www.indiancourts.nic.in
www.judis.nic.in
www.hobom.mah.nic.in
www.legalservies.maharashtra.gov.in.
www.lawsmin.nic.in

16) Last but not the least, please send donations to our cell, so that we can help you.

Also be subscriber to JNIMA to get updated information of the Association.

Now I would like to conclude by announcing our e-mail address. We have opened our e-mail account, so that you can contact us faster and easily.

Our e-mail ID is – **drjbnmmlc@indiatimes.com.**

Thank you,

Dr. A.M. Raut
Secretary, Dr, J.B. Naik
Memorial Medico-legal Cell
Mumbai

(Report prepared by Dr. Rajan Joshi)

ROLE OF AMALAKI RASAYANA IN THE MANAGEMENT OF KAPHAJA LINGNASHA WITH SPECIAL REFERENCE TO EARLY CATARACT

*** Dr. Ajay Kumar Singh[1], ** Dr. M. Sahu[2], *** Dr. O.P.S. Maurya[3]**

ABSTRACT

Indigenous drug Amalaki is potent rejuvenator, Chakshusya best Vayasthapaka and prescribed in various senile degenerative changes. In present study Amalaki was used as a Amalaki Rasayana preparation ie. Single drug preparation and contains amalaki (Emblic myro balan) fruits powder processed in their own juice by 21 times and study was conducted on the 100 patient of Kaphaja Lingnasha with special reference to Early cataract in the dose of 3 gm (2 cap.) with water for a period of ninety days.

Patients were monitored as per Wilmer system "Subjective classification and objective quantitation of human lens. The drug effectively helped in the regression of the extent of the opacity. It also showed a trend of retardation of symptoms polyopia, rainbow haloes around the light and diminution of vision for distant vision and near vision.

INTRODUCTION

Dysfunction of the lens due to partiai and complete opacification is called cataract, pathogenesis of cataract is complicated, yet etiology is multifarious, but for most common cause is simply the aging process. As we grow older damage to the capsule epithelium or constituents fibres of the lens due to gradual loss of water and oxidative stress may all lead to the formation of senile cataract. The concept of cataract was also present in Indian system of medicine/ Ayurvedas but in other forms of orientation and nomenclature and present modern concepts are only an modified form of the same Ayurvedic concept of Kaphaja lingnasha. Kaphaja Lingnasha is Dosbala pravitta disease in which aggravated and vitiated dosa lodged in the dristimandal and giving rise to colouring opacities in the lens. Cataract is one of the most common cause of blindness through out the world. Recent data shows that there are 42 million blind people in the world of which 17 million (40%) are blind due to cataract.

Surgery is as the main treatment for age related cataract, has limited success in many parts of the world and non-surgical preventive means of treating cataract

[1] Lecturer, Shalakya Deptt. Govt. Ayurvedic College, Begusarai
[2] Professor, Shalya Deptt., Faculty of Ayurveda, I.M.S., B.H.U.
[3] Reader, Deptt. of Ophthalmology, I.M.S., B.H.U.

have increasing appeal. Now a day increasing levels of various antioxidant substances in the human body may well be a step towards achieving this goal. So there is a great need to find out a drug which can be effective in the management of Kaphaja Lingnasha with special reference to Early cataract. In Ayurveda Triphala is mostly used in the different administrative form to treating the Timira and early stage of Kaphaja Lingnasha. Amalaki is chief ingredient of Triphala. In Charak samhita it has been described as Amalaki Rasayan in the treatments of Timira (C.C.S). In Susuhruta samhita Triphala advocated in different administration from in the treatment of Timira Roga.

MATERIALS AND METHODS

Plan of Study

Materials and methodology study: 100 cases of Kaphaja Lingnasha (early cataract) were selected for study. The study was carried out in the O.P.D. of Shalya Shalakya and Department of Ophthalmology and graded according to most accurate subjective classification and objective quantitiation of human lens "Wilmer System". Patients were also graded to according to refractive error due to cataractous changes grading SOD level that was estimated by the Kakkar Das and Viswanathan method.

Grouping of Patients

100 cases of Kaphja Lingnasha (early cataract) were denied into two-group viz., Group T, Group P.

Patient Selection Criteria

i. Diminished vision (cloudy appearance) and 100 patients with vision ranging from snellen 6/6 – 5/60 were chosen.

ii. Greyish white appearance of lens (Drishtimandal) – looks like sthool and conch shell, kundo flower moon.

iii. Presence of iris shadow.

iv. On throwing light with plain mirror or ophthalomoscope after the dilation of pupil black shadow or black dots are visible against the fundal glow.

v. Opacity of lens is seen by slit lamp examination.

Dose and drug administration

Patient of treated group were administrated "Amalaki Rasayana 2 capsules in the dose of 1500 mg twice daily with water while the patients in placebo group were given placebo capsules contain charcoal powder in same dose.

Period of drug administration and follow up

Duration of drug administration was 90 days. First follow-up was done at 15 days of the therapy. Second at 30 days, third at 60 day while last follow-up was done on 90 day.

Assessment of treatment

Subjective as well as objective parameters were used for assessment. In subjective assessment, all the patient were interrogated for relief of clinical symptoms like polyopia, rainbow haloes around the light diminished vision for distant and near. Objective assessment was based on (i) visual acuity (ii) opacities of lens as well as extent of opacities. (iii) Refractive error due to cataractous changes (diopteric power of the glasses). (iv) the level of serum SOD.

The reading of all the parameters at each visit were compared with the pretreatment (baseline) readings. Finally the overall changes of treated group cases were compared with that of placebo group cases.

Observation results

Effect of drug on clinical symptoms at last follow up :

Duration of treatment	Symptoms							
	Polyopia				Rainbow haloes around the light			
	Group T		Group G		Group T		Group G	
Pre treatment	58	58%	54	54%	62	62%	66	66%
	Eye responded no.	%	Eyes no. (polyopia was compared)	%	Eye responded no.	%	Eyes no. (polyopia was compared)	%
90 Days	32	55.17	66	66	34	54.84	80	80

Response of drug on polyopia complaint

It was observed that the polyopia complaint was present 58% of the group T and 54% in group P out of 100 eyes. After 90 days 32 eye (55.17%) were relived in group T. Whereas in group P 12 eyes (12% worsening) were more to polyopia complaint so that 66 eyes were found to polyopia symptom.

Response of drug on rainbow hales symptom

It was observed that Rainbow haloes around the eyes was found in 62 eyes (62%) out of 100 eyes in group T and 66 eyes (66%) in group P at pretreatment. After end of treatment (90 days) 34% (54.54%) were relieved where in group P 14 eyes (14%) were more to this symptom so that 80 eyes were found to this symptom.

Response of drug on visual acuity

It was found that in treated group 48 eyes (48%) were improved for at least one line Snellen chart where as in group P visual acuity of 24 eyes were deteriorated after the end of treatment.

Effect of drugs on various components

To evaluate the efficacy of drug Amalaki Rasayana on various component of Kaphaja Lingnasha with special reference to Early cataract comparison of mean grades between pretreatment and post treatment was made.

(i) **Opacities of Lense :** Mean value of opacity grading in group T was 2.77 ± 1.05 and 2.16 ± 1.05 in group P at entry. After 90 days it was found to be 2.15 ± 1.56 and 3.17 ± 1.10 in group T and P, respectively.

(ii) Refractive error due to cataractous changes mean grade value of refractive error due to cataractous changes in group T before treatment was 2.55 ± 1.01 and 2.36 ± 0.96 in group P. After 90 days treatment it was found to be 1.90 ± 1.33 and 2.98 ± 1.10 in group T and group P, respectively.

(iii) **SOD Levels:** Mean value of SOD in group T was $4.043 \times 10^{-2} \pm 7.12847 \times 10^{-3}$ at pretreatment and $4.147 \times 10^{-2} \pm 6.34722 \times 10^{-3}$ ml in group P. It became $4.285 \times 10^{-2} \pm 6.590 \times 10^{-3}$ u/µl T and $3.979 \times 10^{-2} \pm 7.0375 \times 10^{-3}$ u/µl in group T and group P respectively after treatment.

Duration of treatment	Mean opacity grading		Mean refractive error grading		Mean SOD level	
	Group T (n=100)	Group P (n=100)	Group T (n=100)	Group P (n=100)	Group T (n=100)	Group P (n=100)
Pretreatment	2.77±1.05	2.16±1.05	2.55±1.01	2.36±0.96	4.043×10^{-2} $\pm 7.12874 \times 10^{-3}$ u/µl	4.147×10^{-2} $\pm 6.34722 \times 10^{-3}$ u/µl
90 days	2.15±1.36	3.17±1.10	1.90±1.33	2.98±1.10	4.285×10^{-2} $\pm 6.590 \times 10^{-3}$ u/µl	3.979×10^{-2} $\pm 7.0375 \times 10^{-3}$ u/µl

Possible mechanism of action of the drug

Amalaki Rasayan is based vayasthapaka chakshusya and being richest source of vitamin C. Active potential of Amalaki Rasayan Prevented the cataractous changes in many of ways.

- It pacifies the vitiated Kapha dosha in the drishtimandal by its metallic tests roughness, Laghu guna and katu tikta and kasaya rasa.
- It can be react with lens crystalline and cause non disulphide covalent cross linking and insolublization of lens protein.
- It protects against oxidation by its interaction with or scavenging of radicals which leads to degenerative changes in the lens.
- It prevent blockage of amino acid reactivity (mainly of lysine) in proteins which leads to variation in the protein pattern.
- It prevents the riboflavin medicated light induced damage to the cation pump and decreases the photo peroxidation of the membranes which leads to lenticular changes.

Discussion and Conclusion

Clinical study highlights the role of indigenous drug Amalaki in the form of Amalaki Rasayana capsule on the course of Kaphaja Linganasha with special reference to early cataract. It was found that :

1. The drug relieved the symptoms of polyopia complaint and rainbow haloes around the light.
2. The drug also relieved the symptoms of diminution of vision for distant and near vision by improving the visual acuity.
3. The drug showed a trend of regression of the extent of opacity as well as checked the future opacification in the lens during therapy.
4. The drug decreased the refractive error due to cataractous changes.
5. The drug increased the super oxide dismutase level.
6. Both above result prove the effectiveness of drug and during the course of therapy no adverse effect was noted.

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BREAST FEEDING: PRESENT AND PAST

*Dr. Kedar Nath Upadhyay, Lect. Kaumarbhritya and Prasuti Roga,
Govt. Ayodhya Shiv Kumari Ayurvedic , College, Begusarai, Bihar, E mail-apgar@ rediffmail. com

ABSTRACT

Concept of breast feeding was well understood by Ancient Ayurvedic scholar and superiority of breast milk over the other milk was known as well as extensive influence of vitiated breastmilk on child. Human milk is precisely engineered for the human infant. Now a day "Human milk banking" concept is accepted all over the world but in ancient time it was described in the form of "Dhatri". Dhatri a well known Ayurvedic concept.

Key Words: Stanya, Stanya Pravritti, Dhatri, Stanya-sampat, Stanya vriddhi, Anjali-praman.

"The nature has design the provision that infants be fed upon their mother's milk. They find their food and mother at the same time. It is a complete nourishment for them both for their body and soul."

(Ravindra Nath Tagore)

Concept of breast feeding was well understood by ancient Ayurvedic scholar and superiority of breast milk over the other milk was known as well as extensive influence of vitiated breast milk on child. Human milk is precisely engineered for the human infant.

(a) Amount of Stanya :

Amount is two anjali (A.S.Sa. 5/98)

(b) Effect on the Child of the Milk having Different Colours:

Colour of Milk resembling to	:	Qualities of the Child
Oil	:	Very Strong
Ghrita	:	Very Rich
Smoke	:	Renowned
Pure milk	:	All the Qualities
	:	

(Kashyap Sutra 19)

(c) Stanya - Nasha and Stanya Kshaya:

Anger, grief, absence of affection for the child, fear, fasting, excessive exercise, consumption of dry edibles and drinks, emaciation, excessive use of purifying measures and re-pregnancy are the cause of cessation of milk. (Su.Sa. 10/24, Ka, Su. 19).

(d) Stanya Vriddhi:

Breast become heavy and painful associated with recurrent flow of milk (Su. Su. 15/16).

(e) Abnormality due to Feeding with Asampat- Stana or Imperfect Breast

Sucking with over erect breast makes the child Karala (Terrible face), corpulent breast produce neck rigidity and dangling breast cover the face and nose thus cause asphyxia and death of the child (AS. U. 1/38), (S.Sa. 10/22).

(f) Method of Breast Feeding:

On the auspicious date the child should be bathed from head to toe, clothed with new garments and made to sit facing towards north, over the lap of wet nurse who is sitting facing east -wards. The wet nurse after washing the breast and expressing out little quantity of milk. (Su.Sa.10/22).

(h) Effect of Lactation by Different Women:

If the child is given breast milk then the child suffers from various diseases because this changed milk becomes non-congenial to him (A.S.U.1/23).

(i) Diseases Occurring due to Feeding with Unexpressed Breasts:

If the breast are not slightly squeezed then these become tense due to over accumulation of milk. If child sucks those tense breasts, his srotasas get filled and produces cough, dyspnoea, vomiting and fever. (Su.Sha. 10/23).

(j) Stana-Sampat (Merits of Breasts):

Breast should not be Ati-urdhwa, Ati lamba, Ati-pina (excessive corpulent). Ati-Kris and should has appropriate nipple comfortable for sucking are said to be the best (C. Sa. 8/53).

Human and Cow Milk

Factor	Human Milk	Cow's Milk
Bacterial Contamination	None	Likely
Anti infective Factor	Antibodies, Leucocytes Lactoferrin, Bifidus factors	Not active
Protein (i) Total (ii) Casein	1% 0.5%	4% 3%
Aminoacid (i) Cystine (ii) Taurine	For brain growth For brain, retina	Not enough absent
Fat (i) Fatty Acid (ii) Linoleic acid (brain growth	4% (Average) More unsaturated Sufficient	More saturated Not Sufficient
Cholesterol	Up to mark	Not up to mark
Lipase	Present	Absent
Lactose	7%	3-4 %
Vitamin	Enough	Some
Salt (Meq/l) Sodium Chloride Potassium	6.5 (Correct amount) 12 (Correct amount) 14 (Correct amount)	25 (too much) 29 (too much) 35 (too much)
Mineral (mg/l)		

Calcium	350 (correct amount)	1400(too much)
Phosphate	150 (correct amount)	900 (too much)

Let Down Reflex

Contraction of myoepithelial cell around the alveoli help to propel the milk to fill the lacteal sinuses and the force at time expels milk out as drop or thin spray during sucking period.

- Breast consist of gland tissue(alveoli) supporting tissue and fat.
- Alveoli make milk goes alongwith ducts towards the nipple.
- Prolactin stimulates gland cells in the breast to secrete milk (Sucking stimulate Prolactin)
- Oxytocin contracts the muscle cell around alveoli resulting in ejection of milk from the nipple.

Formation of Breast Milk:

After digestion of food rasa is formed, sweet essence part of this rasa circulating through entire body by the action of Vyana-Vayu reaches breast and is termed as Stanya (Su. Ni. 10/20).

Cause of Stanya Pravritti:

As semen is ejaculated by thought, sight or touch of the women or coitus, similarily milk is also ejected by thought, sight or touch of the child and also with his physical contact (Suckling (Su. Ni. 109/22).

Types of Breast Milk

(A) Colostrum (first feed):
Milk secreted first three days;
(Usually 70-90% neonates are not fed colostrum)

- Should never be discarded
- Thick, Yellow (Carotene)
- Rich in immunoglobulins (IgA)
- First immunization
- Facilitates establishment of bifidus flora in GIT
- Facilitates passage of meconium.

(B) Transition Milk : Milk produced between colostrum and mature milk ; Secreted following 1-2 week.

- Fat,Lactose, Caloric Content
- Protein and immunoglobulins
- Water Soluble Vitamins
- Fat soluble vitamins

(C) Mature Milk : Follows transitional milk
It is Thin, watery but contains all nutrients

(D) Preterm Milk : Mothers who deliver prematurely
Milk is rich in protein, Na+,Cl, Zn and lower in Vit. A.
Preterm milk approaches term milk composition after 4-6 weeks

(E) Fore Milk : Produced early in a feed.

- Rich in protein, sugar , minberals and vitamins.

(F) Hind Milk : Produced later in a feed.

- Rich in fat and provide more energy.

WHY BREAST FEED?

Breast is Best"

- Human milk is not only species specific , but also baby specific
- Ideal food for growth and development
- Provide complete nutrition for about 6 months of life.
- Special enzyme lipase helps in proper digestion of fat.
- The human brain and the child has to grow very fast in first two year of life.
- Bottle in the biggest killer of babies in developing countries.

Hence Breast Milk:

- Prevents death **of an additional** 1.3 million infants **each year.**
- 14 times infants less likely to die from diarrhoea.
- 4 times less likely to die from respiratory diseases.
- 3 times less likely to die from other infections.

Nutrient Features:

- Lower protein with casein whey ratio (40:60)
- High lactose content
- Fat rich in poly -unsaturated essential fatty acidlinoleic acid, lipase helps in digestion.
- High calcium phosphorus ratio with better availability of calcium.
- Low renal solute load
- Better iron and vitamins availability (especially A, D.C.,E)
- protects Against Infections:
- Less diarrhoe, fever, respiratory and middle ear infection. it has living WBC which help to fight infection.
- Contain bifidus factor which help special bacteria called lactobacillus bifidus to grow in baby intestine.
- L. bifidus prevents other harmful bacteria causing diarrhoea.
- Lactoferrin in breast milk bind iron which prevents the growth of some harmful iron needing bacteria.

Special Features:

- Cheaper than powedered milk.
- Little extra food needed by mother.
- Available at Convenience and at right temperature
- Delays subsequent child.

"In India alone about 25 million nursing mothers produce on an average of about 3.9 million tones of milk annually."

"Universal prodmotion of breast feeding leads to national cost saving to the tune of US $ 2023 million (8.500 crores) per annum in India alone."

Antibacterial Factor in breast Milk*:

Bifidus growth factor	Enteric Pathogen
Secretary lgA	E.Coli,C.Tetani C. diphtheriae. Salmonla and Shigella
C1-Cg	Effect not known
Lactoferrin	E.coli, C.albicans
Lactoperoxidase	Streptococcus, Pseudomonas,
Lysozyme	E.coli.
Lipid	E.coli,Salmonella
(Unsaturated fatty acid)	S.aureus

* From Welsh J.K. May JT: 1979.. (In -vitro Study)

Anti-viral Factor in breast Milk*:

Secredtary lgA	Polio types 1,2,3,Rotavirus, Ross river virus
Lipid (unsaturated fatty acids and monoglycerides)	Herpes simplex, Japanese B encephalitis virus.
Non immuno globuline macromolecules	Herpes simplex, vesicular stomatitis virus
Milk cell	Rota virus, Phagocytosis?

* From Welsh J.K. May JT: 1979.. (In -vitro Study)

TEN 'C' FACTORS(Infant)

- Counter risk of allergic disorders e.g. Asthma and Eczeme.
- Cancer (Lymphoma) risk is reduced
- Configuration of jaw is better of the mechanism of sucking at the breast.
- Caries in teeth are less common.
- Coronary artery disease risk in later life is reduced.
- Clever Children. better Cognition and I.Q. Score.
- Cot death (SIDS) reduced.

Mother:

- Cheapter than artificial milk
- Cancer of Breast and osteoporosis in later life is reduced.
- Contraction of uterus when the baby is put to breast soon after delivery assist in expulsion of placenta and minimized risk of post partum bleeding.

DIET DURING LACTATION

Group	Daily additional requirement of calories (Cal)	Daily additional requirement of protein (g)
Pregnant Women	300	15
Lactating women 0-6 month 6-12 month	 550 400	 25 18

Adapted from ICMR Report

Drug Therapy During Lactation

Drugs compatible with breast feeding:

Analgesics, antibiotisc, CVS and CNS drugs.

Drugs contra-indicated:

Anti-cancer drugs, anti-thyroid drugs, radio-active pharmaceuticals ergotamine, gold salt, bromocriptin,Tetracycline, MAO inhibitor anti-depressant, Lithium, harmful for infants.

APPROPRIATE BREAST FEEDING

Initiation:

- Baby should be given to mother to hold as soon as he is born and put to breast within one hour.
- After normal delivery most babies want to suck during first hour after they are born, good time for the baby to learn sucking.
- A breast fed baby does not require supplementation with water.

Established:

- Factor that decreases duration efficiency and frequency of infant suckling should be eliminated.
- Do not give prelacteal feeds e.g. honey, sugar, glucose, water.
- Include limitation of feeding time, poor positioning.
- Bottle fed should never be introduced.

Rooming in:

- Baby and mother staying in the same room. Baby and mother sleeping in the same bed insead of separate cots.
- Continue breast feeding during night, more prolactine is secred at night, this promotes increased milk production.

Baby should be fed on demand and not by clock.

Proper Positioning:

- Causes no pain to mother
- Close to mother, chin touches the breast.
- Can be fed in any position.

Frequency of feeding:

- Help to make more milk
- Prevent engorgement

Duration of feeding:

- As long as baby want to suckle
- Never pulled off suddenly
- Regurgitation

HUMAN MILK BANKING:

A service established for the purpose of collecting, screening,processing, storing and distributing donated human milk to meet the specific needs of individual for whom human milk is prescribed by physician. It ensures a continuous supply of safe human milk to sick and preterm baby and this reduce infection rate in hospitalized baby.

First milk bank was opened in Vienna 1900. USA (Massachusetts) 1910.

AAP 1943 ,First formal guidelines of H.M. Bank
Storage of Milk (Human)
-Mother's milk
-Donar's milk

Indications

If mother is receiving cancer therapy, anti-thyroid drugs, ergotamine, MAO inhibitor, Psychosis (untreated).

- HIV mother
- Febrile illness
- Mastitis, breast abscess
- Maternal infection such as hepatitis -B or open T.B. do not contraindicate breast feeding, provided the body is given immunoprophylaxis (Hepatitis B Vaccine + heaptitis-B immunoglobulines). Soon after birth and (INH+Rifampicin) in case of maternal T.B.

The Woman Unfit for Lactation:

The woman who is hungry, grieved, tired has vitiation of dhatus, is pregnant, suffering from fever, emaciated, obese and has consumed diet likely to produce vidaha, should not give breast-feed to the child.

The child who recently ingested medicine is not assimilated should also not be given the feed, because at this stage the force of dosa, aushadhi and mala is too much (Su. Sa. 10/25).

Importance of Dhatri:

- Tolerates various troubles and deprived of nourishment..
- Mother withstand troubles due to hope, affection. Compassion, duty and protection of the child and by this they feel honoured.
- The child also suffers various pain because of inability in defending one self and fulfillment of own requirement, wet nurse enjoys the fruits of having a son. (Ka, S.Chi. Dhatriu).

Characteristic of Dhatri:

Physical-Similar colour caste, Average body built, Beautiful, dark complexioned, Normal body parts and devoid of breast anomalies, Observing principles of hygiene.

Physiological Young (Middle aged) Healthy (Devoid of any physical and breast milk disorders), Possessing sufficient breast milk.

Psychological Humble, without disgust, affectionate to child, good mannered, non greedy, Pious.

Misc.:- High family, Non addict.

Qualification of Donars:

1. Normal pregnancy and delivedry
2. Serologically negative for syphillis, HBs Ag. CMV. HIV.
3. No infection acute or chronic
4. Not taking medication e.g. smoking, Alcohol.
5. Capable of carrying out sterile technique.

Dhatri Examination:

तस्मात् संशोधनपरा नित्यं धात्री प्रशस्यते (Ka. Su.19)

Should use daily purifying measures. Wet-nurse belonging to similar satwa to which child belongs is praiseworthy. Belonging to opposite satwa is forbidden, becuase she will produce uneasiness and troubles to the child. Identical satwa gives nourishment (Pusti), Ayu,Bala, Sukha, to the child.

Storatge of milk:

- At room temperature 6-8 hour.
- At 4°C (24 hour to 5 day)
- At -20°C (6 months to 1 year)
- Pasteurization is better for ensuring sterility but expensive and inactivate milk lipase and immune component.
- Freezing and thawing causes disruption of fat globules.

Technique for Collection:

- Washing hands and breast before handling pumping.
- Two way of collection
  1. Letting the milk drip while the infant nurses on the other side
  2. Pumping (electric) or manually expressing milk.
- Dripped milk-lower calorie and contaminationPumped milk - higher fat content, more volume.
- Electric pumping (White river) more effective in raising maternal prolactin level hence milk volume.
- Sample sent for culture on random basis.

Storage and testing of milk samples:

- Done immediately at -20oC.
- Samples should be labeled donar name date, time.
- Oldest milk is used first

Changing flavour of stored milk:

- Soapy smell - due to change in lipid sturcture
- When mother heated their milk to a scald (Not boiling) and then quickly cooled and Froze it- infant accepted heat treated milk.
- Process inactivated lipase for fat digestion.

Stanya- Sampat (Characteristics of Normal Breast Milk):

अव्याहतबला युररोगोवर्धतेसुखम्। शिशुधाञ्योरनापत्तिः शुद्धक्षीरस्यलक्षणम्

(Ka. Su. 19)

Kashyap says that pure milk is that which provides unobstructed, easy and good growth of strength, different body parts, longevity as well as good health to the child and does not cause any pain to the child and wet nurse.

Pure milk is cold, clean, whitish-yellow or like colour of conchshell, sweet in taste and free from discolouration, when put in water, it mixes evenly, neither producess froth nor streak, neither floats nor settle down. The type of milk provide good health, growth and development of body as well as strength to the child. (Su. Ni. 10/24).

Ashta-Kshira Dosha (C.Su. 19/1-3):

Vataja

1. **Vairasya (Tasteless):** Emaciated, poor growth, does not feel any taste.

2. Phenasanghata: Weak cry, retension of Urine and feces, pinasa and head disorders of vata.

3. Ruksha: Child consuming this milk suffers from loss of energy.

Pittaja

4. Vaivarnya: Excessive perspiration, thirst and diarrhoea, Body is always hot and no desire for sucking.

5. Daurgandhya: Anemia, Jaundice.

Kaphaja

6. Atisnigdha: Tiredness, dyspnoea, cough, excessive expectoration.

7. Picchila: Excessive salivation, edema of eye and face as well as dullness.

8. Guru: Hridroga , as well as other disorders of Kapha.

Colour of Milk and maternal Diet

- Normal Bluish White
- Colostrum yellow to yellow orange (- carotene)
- Depend on pigment in mother diet medication.β

Pink or Pink orange milk:

- This milk was traced to Sunkist orange soda which contain red yellow dyes.
- Also infant urine (Pink) was reported by Roseman

Green Milk:

- Green beverage and other form of sea weed especially in tablet form.
- Natural vitamin associated with green milk.

Black milk:

- Minocycline Hydrochloride therapy
- Drug is known to cause black pigmentation of skin.

Substitute milk in case of non- availability of milk of mother or wetnurse:

Goat or cow's milk should be given in suitable amount and continue until the mother or wetnurse does not regain sufficient milk (Su.Sha. 10/39).

Advice to Dhatri to consume limited diet and its benefits:

Dhatri who consumes limited and congenial diet, her child does not suffer from above disorder and she herself also gets pleasures

(Ka. S.Dhartri, Chi.)

HOW TO INCREASE A WOMEN'S MILK SUPPLY?

- Try to give the mother confidence that she will have enough milk.
- Eat well and drink plenty of water.
- Should keep the baby near her & handle him her self.
- Feed the baby more often.

Lactogogues: Increase mother's milk supply e.g. milk, soup, Panjiri,

- Some women note that small amount of alcoholic drink makes their milk flow perhpas because it reduces their anxiety but not for treatment.

Drugs to increase the milk supply:

- Metoclopramide 10-15 mg tid for 2 months
- Chlorpromazine 25 mg tid for 1 week.

"Crying because does not get enough Milk"

- Most common reason to give addition feed when it is not required.
- Assess adequacy of breast milk.
- Hot cold weather

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Anushastra Karma – Parasurgical Therapy:

Agni Karma

Dr. D.N. Pande, Head Deptt. of Shalya Tantra, I.M.S., B.H.U., Varanasi - 221005

The word Agnikarma denotes Agni + Karma i.e. Heat + Proceure. "Agnikarma is a parasurgical perocedure in which Samyaka Dagdha Vrana are produced by Agni with the help of various Dravyas.

अग्निनाकृतं यत् कर्म तत् अग्निकर्म।।

Introduction :

References of Agnikarma Cikitsa are available in the Ayurvedic texts as well as in 'Veda'.

Veda :

- Atharvaveda - Agni is accepted as God and Bhesaja in the reference of Krimi (Ath. 5/23/1, 3, 5).
- Rigveda (10/162/1-4) – Agnikarma Cikitsa is present in reference to obstetric diseases.
- Yajurveda (23/10/1) – for treatment of Sita.
- Samaveda – A separate chapter as Agneykanda.

Caraka Samhita :

Caraka Samhita - Agnikarma Cikitsa – Ch. Su. 11/55 i.e. Sastra Pranidhana, Agnikarma Cikitsa in Divarniya Adhyaya as a treatment of Vrana (Ch. Chi. 25/101-103), Vidhishonita Adhyaya (Ch. Su. 24/46), Vividhashitapitiya Adhyaya (28/26), Gulma Cikitsa in referemce of Kaphaja Gulma. (Ch. Chi. 5/55, 61, 62, 163, 186), Shvayathu Cikitsa in reference of Granthi Roga and Bhagandara Cikitsa. (Ch. 12/82, 97), Udara Cikitsa in reference of Pleehodara Roga and Yakrutodara Cikitsa. (Ch. Chi. 13/86), Arsa Cikitsa in reference of Arshashastra Karma, Ksara Karma and Agnikarma. (Ch. Chi. 14/33), Visarpa Cikitsa in reference of Granthi Visarpa Cikitsa. (Ch. Chi. 21/132), Visa Cikitsa in reference of Visa Vega Cikitsa. (Ch. Chi. 23/45), Udara Cikitsa in reference of Pleehodara Roga and Yakrautodara Cikitsa, Vatavyadhi Cikitsa in reference of Grdhrasi Roga Cikitsa. (Ch. Chi. 28/100), Trimarmiya Cikitsa in reference of Ardhavabhedaka Roga Cikitsa. (Ch. Si. 9/78)

Sushruta Samhita :

Acharya Sushruta accepted Agnikarma as a parasurgical procedure and mentioned as superior to all parasurtical procedures. Many descriptions available in Sushruta Samhita regarding Agnikarma as below -

Yantravidhi Adhyaya : as an Upayantra. (Su. Su. 7/14), Agnikarma Vidhi Adhyaya : (Su. Su. 12/9-10), Salyopaniya Adhyaya : as a Salyaniraharana (Su. Su. 27/14), Arsa Roga Cikitsa : (Su. Chi. 6/3), Asmari Cikitsa : as a Varana Cikitsa. (Su.Chi. 7/35), Bhagandara Cikitsa : as a Varana (Su. Chi. 8/14, 21, 24, 29), Kustha Cikitsa (Su. Chi. 9/3, 5, 7, 9, 10, 11, 20), Prameha Cikitsa (Su. Chi. 12/10), Granthiapacayaarbuda Cikitsa : (Su. Chi. 18/14, 17, 24, 39, 43, 44), Vrudhiupadansa Cikitsa : (Su. Chi. 19/21-23, 50-51, 53-54), Ksudra Roga Cikitsa : (Su. Chi. 20/10, 19, 29, 32), Mukha Roga Cikitsa : (Su. Chi. 22/7, 9, 23, 27-29, 40), In

Sushruta Uttartantra : reference no. 14/5, 40/39, the context of Agropaharaniya, as Upayantra, Anusastra and one of 60 Upakarma of Vrana : (Su. Su. 5/6; Su. Su. 7/15; Su.Su. 8/15; Su. Chi. 1/8).

Astanga Samgraha :

Astanga Samgraha Sutra 40 deals with Agnikarma Vidhi and there are many reference to use Agnikarma for treating other diseases.

Astanga Hridaya :

Astanga Hridaya Sutra 30 deals with Agnikarma Vidhi.

Harita Samhita :

Harita Samhita : Agnikarma was indicated as a important type of treatment, out of the eight types of treatment (H.S.1/2/7-8).

- H.S. 3/11/99-100
- H.S. 3/14/23
- H.S. 3/18/37
- H.S. 3/22/9-11
- H.S. 3/54/30

Cakradatta

Cakradatta had mentioned Agnikarma for Grdhrasi.

विध्येत् शिरा मेढ्रबस्ते स्यात् चतुरङ्गले यदिनोपशमं गच्छेत् दहेत पादकनिष्ठीकम्। (Cakradatta)

Yoga Ratnakara :

Yogaratnakara had explained Agnikarma for treatment of Grdhrasi.

Sarangadhara, Gadanigraha Vangasena, Bhavaprakasa also mentioned Agnikarma Cikitsa in the management of various diseases.

Dahanopkarana – Armamentarium of Agnikarma :

Dahanopakarana are the instrument to produce therapeutic burns (Samyaka Dagdha) during Agnikarma Cikitsa. They are classified as below –

Dahanopakarana Classification

Dahanopakrana	Su.	Ch.	A.S.	A.H.
Pippali	+	-	+	-
Aja Shakrit	+	-	+	-
Godanta	+	-	+	+
Sara	+	+	+	+
Salaka	+	-	+	-
Jambavastha	+	-	+	+
Dhatu	+	-	-	-
Madhu	+	+	+	+

Madhuchista	+	+	+	-
Guda	+	-	+	+
Vasa	+	-	+	+
Ghrta	+	+	+	+
Tailam	+	+	+	+
Yastimadhu	-	-	+	-
Suci	-	-	+	-
Varti	-	-	-	+
Suryakanta	-	-	+	-

Reference:

- Su. Su. 7/15, 12/4;
- Su. Chi. 2/1/37;
- Su. Chi. 5/60; 25/102;
- A. H. Su. 25/20; 25/37;
- A. H. Chi. 14/115;
- S. Su. 34; 25/37

These Dahanopakarana are also divided in three groups.

1st group is useful for Agnikarma of Twak Dhatu (Skin)

- Pippali - Sara
- Ajasakrta - Shalaka
- Godanta

2nd group is useful for Agnikarma of Mamsa Dhatu

- Jambaustha
- Other Loha

3rd group is useful for Agnikarma Cikitsa of Sira, Snayu, Sandhi, Asthi Dhatu

- Madhu
- Guda
- Sneha

THE VARIOUS SHALAKA AND THEIR COMPONENTS

Components of Pancadhatu Salaka :

- Tamra (copper) → 40%
- Loha (iron) → 30%
- Yasada (zinc) → 10%
- Rajat (silver) → 10%

- Vanga (tin) → 10%

Dahana Visesa :

Dahana Visesa is the figure produced in the skin after Agnikarma Cikitsa.

1. Valaya (circle)
2. Bindoo (dot)
3. Vilekha (parallel line)
4. Pratisarana (rubbing)

These four types are mentioned by Acarya Sushruta in Agnikarma Vidhi Adhyaya (Su. Su. 12/11). On the other hand, Astanga samgrahakara mentioned three more Dahana Visesa with addition to Sushruta Dahana Visesa.

1. Ardhchandra
2. Swastika
3. Ashtapada

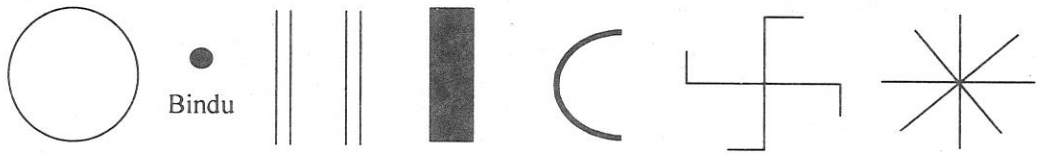


Figure of Dahana Visesa

Classification of Agnikarma

Agnikarma is classified as follows :

1). According to Dravya :

a. **Snigdha Agnikarma :** Madhu, Ghrta, Taila etc. are used for Agnikarma of Sira, Snayu, Sandhi, Asthi.

b. **Ruksa Agnikarma :** Pippali, Salaka, Godanta are used for Agnikarma of Twak and Mamsa.

2). According to Site :

a. **Sthanika (local) :** Kadara, arsa, Vicharchika.

b. **Sthanantariya (systemic) :** Apaci, Grdhrasi.

3). According to Disease :

a. In the disease like Arsa, Kadara etc., it should be done after surgical excision (Chhedana).

b. In the disease like fistula, sinus etc., it should be done after surgical incision (Bhedana).

c. In the disease like Krmidanta, it should be done after filling by the Guda.

4). According to Akriti :

Described earlier in Dahana Visesa.

5). According to Dhatu :

Sushruta mentioned different materials for Twak Dagdha, Mamsa Dagdha, Sira-Snayu and Asthi Dagdha but in practice, many surgeons are using Dhatu i.e. Suvarna, Rajata, Loha, Tamra, Kansya, Pancadhatu etc. as per their need and experience.

Dagdha Bheda – Types

According to Sushruta, all Dagdha are included under four types of Dagdha :

1. **Plustha Dagdha :** Plustha is that in which a pigmented area on the skin associated with severe burning sensation arises.
2. **Dur Dagdha :** Durdagdha is that in which sphota (blebs, vesicles) appear, accompanied with severe pain such as sucking, burning, redness, Paka (exudation or ulceration) and pain. These subside after a long time.
3. **Samyaka Dagdha :** Acarya Sushruta mentined (Samanya Laksana) the common symptoms produced during any type of Dagdha and special symptoms are only related to the Dagdha Dhatu concern.

Samanya Laksana of Samyaka Dagdha Vrana :

- Ana-awagadha Vranata (Wound which is not deep)
- Talphala Varnata (Fruit of Tala tree-blue-black in colour)
- Susamsita Vrana (Without elevation or depression)

Special symptoms of Samyaka Dagdha Vrana Related to Skin

- Shabdapradurbhao (Production of sound)
- Durgandhata (Bad odour)
- Twak Sankocha (contraction of the skin)

Special symptoms of Samyaka Dagdha Vrana Related to Mamsa Dhatu

- Kapotvarnata (Colour like that of pigeon i.e. ashy, dark grey)
- Alpa Swayathu (Mild swelling)
- Alpa Vedana (Less pain)
- Suska Sankuchit Vranata (Dry, contracted wound)

Special symptoms and signs of Samyaka Dagdha Vrana Related to Sira, Snayu

- Krishna Vranata (Black coloration)
- Unnata Vranata (Elevation)
- Srava – Sannirodha (Stoppage of discharge)

Special symptoms and Sings of Samyaka Dagdha Vrana Related to Sandhi, Asthi

- Ruksata (Dryness)
- Arunata (Dark red coloration)
- Karkasata (Roughness)
- Sthirata (Stability)

4. Ati Dagdha

- Mamsa-avalambana (Hanging, burnt tissue)
- Gatra-vislesa (Parts become loose and useless)
- Destruction of Sira, Snayu, Sandhi (Tendons and joints)
- Jwara (Fever)
- Daha (Burning)
- Pipasa (Thirst)
- Murcha (Unconsciousness)
- Delayed wound healing and life long discoloration (scar).

According to modern terminology, Plushtha is scorched burn, Durdagdha is blistered burn, Samyaka Dagdha is superficial burn and is ideal Ati Dagdha is deep which is excessive and contraindicated.

Agni Karma Kala (Suitable time) :

Agnikarma can be done in all seasons, except sarad (autumn) and Grishma (summer); it is why? Because in Sharad, there is a Prakopa of Pitta and Agnikarma also aggravates Pitta thus it may lead pitta Prakopa. Therefore Agnikarma is contraindicated. In these seasons but it can be done in cases emergency, after adopting some precautions.

Dalhana mentioned some precations like with moist cloth, use of cold foods and applying pastes which are cooling etc, to mitigate the effect of burning.

AGNIKARMA – PROCEDURE

Poorva Karma

Indication of Agnikarma

Vyadhi		Ch.	Su.	A.S.	A.H.	B.P.	Y.R.	G.N.	Sha.
1.	Siroroga	-	+	-	+	-	-	-	-
2.	Vataja Shiroroga	-	-	+	-	-	-	-	-
3.	Kaphaja Shiroroga	-	-	+	-	-	-	-	-
4.	Ardhavabhedaka	+	-	-	-	-	-	-	-
5.	Bhrugata Vedana	-	-	+	-	-	-	-	-
6.	Vartma Roga	-	+	-	-	-	-	-	-
7.	Paksmakopa	-	+	+	-	-	+	+	-
8.	Slista Vratma	-	-	+	+	-	-	-	-
9.	Visavratma	-	-	+	-	-	-	-	-
10.	Alaji	-	-	+	+	-	-	-	-
11.	Arbuda	-	-	-	+	-	-	-	-
12.	Puyalasa	-	-	-	+	-	-	-	-

13.	Abhisyanda	-	-	+	-	-	-	-	-
14.	Adimantha	-	+	+	-	-	-	-	-
15.	Lagana	-	+	+	+	-	-	-	-
16.	Medoj Ostharoga	-	+	+	+	-	-	-	-
17.	Danta Nadi	-	+	-	+	+	+	+	-
18.	Krmidanta	-	+	+	+	-	-	-	-
19.	Abhidanta	-	-	+	+	-	+	+	-
20.	Sitadanta	-	-	+	+	-	-	-	-
21.	Dantavriddhi	-	-	+	+	-	-	-	-
22.	Jalarbuda	-	-	+	+	-	-	-	-
23.	Arsa	-	+	+	+	-	-	-	-
24.	Nasa Arsa	-	-	+	+	-	-	-	-
25.	Karnarsa	-	-	+	+	-	-	-	-
26.	Lingarsa	-	-	-	+	-	-	-	-
27.	Yoniarsa	-	-	-	+	-	-	-	-
28.	Bhagandara	+	+	+	+	+	-	+	-
29.	Cipa	-	+	-	-	-	-	-	-
30.	Kunakha	-	+	-	-	-	-	-	-
31.	Kadara	-	+	+	+	+	+	+	-
32.	Valmika	-	+	+	+	+	+	-	-
33.	Jatumani	-	+	+	+	+	+	+	-
34.	Masaka	-	+	+	+	+	+	+	-
35.	Tilakalaka	-	+	+	+	+	+	+	-
36.	Charmakila	-	+	+	+	+	+	+	-
37.	Prasupti	-	+	-	+	-	-	-	-
38.	Visa Cikitsa	+	-	-	-	-	-	-	-
39.	Sarpadansa	+	+	+	+	-	-	-	-
40.	Alarkvisa	-	+	-	+	-	-	-	-
41.	Lutavisa	-	-	+	+	-	-	-	-

42.	Mushakavisa	-	-	+	+	-	-	-	-
43	**Grdhrasi**	+	+	-	-	-	-	-	-
44.	Vatajasula	-	+	-	-	-	-	-	-
45.	Viswachi	-	-	+	+	-	-	-	-
46.	Galaganda	-	+	+	+	-	-	-	-
47	Gandamala	+	-	+	+	-	-	-	-
48.	Apaci	-	+	+	+	+	-	+	-
49.	Granthi	+	+	+	+	-	+	-	-
50.	Antravrddhi	-	+	+	+	-	+	-	-
51.	Slipada	-	+	+	+	-	-	-	-
52.	Nadivrana	-	+	+	-	-	-	-	-
53.	Upadansa	-	+	-	-	-	-	-	-
54.	Gulma	+	-	+	+	-	-	-	-
55.	Visucika	-	+	+	+	-	-	-	-
56.	Alsaka	-	+	-	-	-	-	-	-
57.	Vilambika	-	+	-	-	-	-	-	-
58.	Sanyasa	+	-	-	-	-	-	-	-
60.	Yakrta and Pleehodara	-	-	+	+	+	-	-	+
61.	Sonita Atipravritti	+	+	+	-	-	-	-	-
62.	Sira Sandhi Chheda	-	+	+	-	-	-	-	-
63.	Visarpa	+	-	-	-	-	-	-	-
64.	Sotha	+	-	-	-	-	-	-	-

Contraindications of Agnikarma :

(1) Pitta Prakrti, (2) Bhinna Kostha, (3) Durbalya, (4) Vrddha, (5) Antah Sonita, (6) Anuddhrata Salya, (7) Bala, (8) Bhiru, (9) Multiple Vrana, (10) Bala

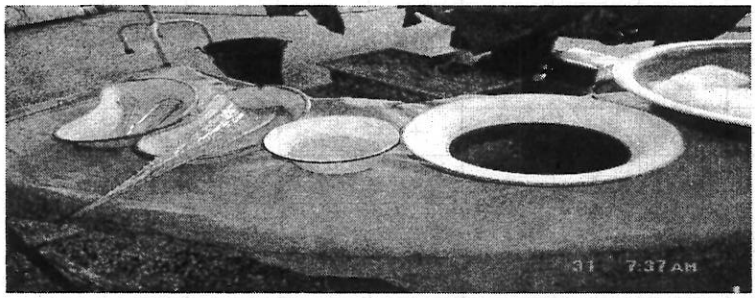
(11) They who are contraindicated for Swedana (sudation) therapy. Swedana is contraindicated for the person and suffering from –

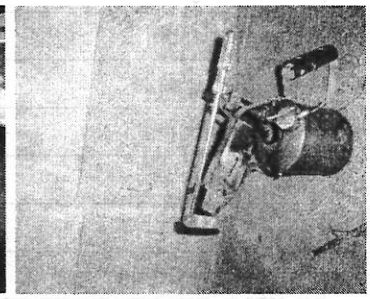
(1) Pandu, (2) Atisara, (3) Ksaya, (4) Guda Bhramsha, (5) Udara Roga, (6) Nasa Sanjna, (7) Chhardi, (8) Socita, (9) Who Has Taken Alcohol, (10) Oja Ksaya, (11) Vidagdha, (12) Rakta Pitta, (13) Sthula, (14) Ajirna, (15) Kruddha, (16) Trsna, (17) Adhya Rogi, (18) Garbhini, (19) Prameha, (20) Ruksa, (21) Daurbalya, (22) Sranta, (23) Visa, (24) Ksudha, (25) Timira, (26) Ksata

- Su. Su. 12/13; Su. Chi. 32/25-26; Ch. Su. 14/15-18

According to Caraka Agnikarma should not be done in the Vrana of Snayu, Marma, Netra, Kustha and Vrana with Visa and Shalya (Ch. Chi. 25/105).

Armamentarium (Agropharaniyani)





- The Agnikarma room should be well prepared with all required Agropaharaniyani described by Acarya Sushruta (Su. Su. 5/6; Su. Su. 12/4).
- Triphala Kasaya for Praksalana of the local part of patient.
- Yashtimadhu Churna, small pieces of Kumari Patra Swarasa, swab holding forceps, Plota (gauze piece), Picu (cotton), gas stove, Pancadhatu Salaka (innovated by Prof. P.D. Gupta).
- The Shalaka is heated to red hot on fire.

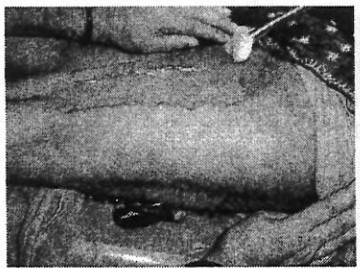
Pre-operative assessment of the patients -

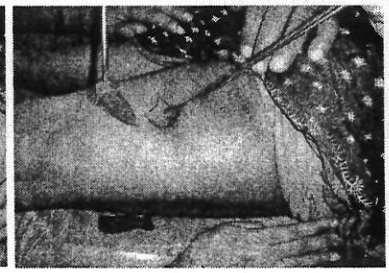
- Agnikarma is contraindicated in the person who have pitta predominant Prakrti (constitution) or diseases or Paitika Nadi. Even though if is necessary to do in these type of patients; Pratisedha of Pitta must be done.
- If there is involvement of Snayu, Kandara, Asthi or Sandhi then Radiological Investigations, M.R.I., C.T. Scan ect. Are to be done to find out the pathology as well to see the improvement.
- Patient is advised to take Piccila and Snigdha light diet before treatment.

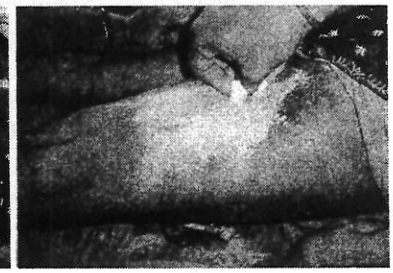
Consent

- It is advisable to take written inform consent of the patient before going to Agnikarma as it gives information regarding the procedure to the patient and relatives also. It is useful in medico-legal cases in favor of the physician.

PRADHANA KARMA







Position of the patient (Asana for Agnikarma) : In Grdhrasi, it is easy to do Agnikarma in prone position as well it is comfortable to the patient. The position may depend on the site of disease.

Consideration of the site for Agnikarma : In Grdhrasi, Agnikarma, has to do at the site of Antara-Kandara-Gulpha-Madhya-Tendo-Calcaneous ligament according to Acarya Sushruta (Su. Su.).

- Occasionlly Samyak Dagdha Vrana are made in the way of sciatic nerve where maximum pain had felt.

Painting and Drapping: The patient has been advised to lie down on the bed in prone position. Then the diseased area is isolated and washed (Praksalana) with Trphala Kasaya. Here we do not use spirit because it is heat sensitive agent.

- Draps are sterilized sheets commonly of water proof paper or linen and are used to establish a sterile field at the site of an operative incision or Samyak Dagdha Vrana. So draping of local part of the patients is done.

To make Samyaka Dagdha Vrana : after carefully considering the symptoms of the disease, the vital spots and the strength of the patient, disease and seasons, the physician should undertake to branding (Su. Su. 12/12)

- On the diseased skin of the patient, the Samyak Dagdha Vrana are produced by red hot Salaka (Pancadhatu). The number of the Samyak Dagdha Vrana may be 5-30 according to the extent of the diseased area.

Application of cooling agents : After making Samyak Dagdha Vrana cooling agent should be applied to subside burning pain. Here, we used small pieces of Kumari Patra after crushing with swab holding forceps.

Dusting and Branding : After branding has been done in the proper manner, the area should be anointed with mixture of Madhu and Ghrta (Su. Su. 12/13) we can use dusting of Yashtimadhu Churna.

PASCHAT KARMA

Pathya Apathya and Follow up : In Agnikarma procedure, we make Samyak Dagdha Vrana (therapeutic burn). It is necessary that it could be heal without any complications. So, all the Pathya-Apathya, which described by Acarya Sushruta, should be advised. It is most advisable to the patient that "Do not touch water to the Samyak Dagdha Vrana for Ahoratra (24 hours)". After very next day, mixture of Haridra + coconut oil should be applied once a day for a week. The complete Ropana (healing) of the Vrana should be observed. Agnikarma Cikitsa can be repeated after seven days.

Complications of Agnikarma and its management:

Plustha Dagdha: If the shalaka is not properly heated then it will produce this type of Dagdha.

- For Plustha (burns of the first degree) warming the body (increasing the body temperature) and administration of drugs/medicines of Ushnavirya (hot potency) should be done because when the temperature of the body raised the blood

becomes liquefied; water by nature is Sheetvirya (cold in potency)and so makes the blood thick (coagulate) hence heat only gives comfort.

- Warming the body again which has been burnt by fire has been advocated with the intention of maintaining the fluidity of blood and to maintain the circulation. This would ensure quick relief of symptoms. On the other hand application of cold water, making the blood thick and obstruct circulation. it is the opinion of Dalhana.

Durdagdha : When the physicians is unskilled or patient is shaking his body parts due to fear of burn then Durdagdha may occur.

- In Durdagdha (burns of the second degree) the physician should apply the both warm and cold therapies, application of Ghee, poultices and bathing the body should be done in cold state only.

Ati-Dagdha : This complication is produced due to more heat which is transferred from the red hot Salaka to the diseased part. In Ati Dagdha (burn of the third degree) the torn (and hanging loose) muscles should be removed (by cutting followed by cold therapies, then the physician should apply the paste of broken rice, bark of Tinduki mixed with ghee or cover the wound with leaves of Guduchi of aquatic plant (like lotus etc.) all the treatments similar to that of Visarpa of Pitta origin should be done.

- Madhuchhisthadi Ghrta contains Madhuchhistha, Madhuka, Lodhara, Sarjarasa, Manjistha, Chandana and Murva, should be macerated together and then cooked with ghee, is best for healing of wound in all kinds of burns.

Daha (burning) : More or less burning pain is experienced by each and every patient who uses to take Agnikarma Chikitsa.

- This may be treated by **Ghritakumari Patra Swarasa.**

Dushtha Vranata (Sepsis of wound) : After Agnikarma, it should be observed for any complications. If there may sepsis in the wound treatment of the patient should be accordingly.

Agnikarma Sresthata: (Superiority of Agnikarma)

क्षारादग्निर्गरीयान् क्रियासु व्याख्यातः, तदग्धानां।

रोगाणामपुनर्भावाद्भेषजशस्त्रक्षरैरसाध्यानां तत्साध्यत्वाश्च।। (Su. Su. 12/3)

Agnikarma is better than Ksara Karma because diseases treated by Agnikarma will not reoccur and also those diseases which are incurable by the use of Bhesaja Karma. Agnikarma will cure Sastra Karma and Ksara Karma.

The surgical excision should be done with the sharp instrument, which is heated by Agni with benefit asepsis; otherwise there will be sepsis by unheated instrument (Dalhana – Su. Chi. 2/46). Therefore Agnikarma is superior than other procedures.

EXPORT POTENTIAL OF MEDICINAL PLANTS & PRODUCTS FROM INDIA

***Rohit Bhattacharya** ****Dr. K.R.C. Reddy** *****Dr. A.K. Mishra**

Key words : Ayurveda, Plant Product, Export, Constraints Strategies.

ABSTRACT

Ayurveda, the traditional Indian medicine remains the most ancient yet living traditions with sound philosophical, experiential and experimental background. Nowadays there has been an upsurge in global acceptance of Ayurveda due to the fact that it has less side effects, low cost, having rich quality of enhancing the immunity power human beings to fight against diseases. The world bank reports trade in medicinal plants, botanical drug products and raw material worth Rs. US $ 67 billion and growing at an annual growth rate between 5 and 15%. But India's share of this multi billion industry is very minuscule nearly 1.3% while china with the same rich heritage of Ayurvedic system is having a good share nearly 16% of the world market. This paper highlights the major lacunas of this sector why we are lagging behind in this emerging area of foreign trade, export performance of our country, potential of this sector in foreign market and the strategies to be adopted to capitalize the potential available in this emerging area in world market.

Introduction

According to the ancient books of knowledge health is considered as a pre-requisite for achieving the superior ends of life consisting righteousness, wealth, artistic values and spiritual freedom. Preventive and curative aspects of disease are considered as important components of the concept of positive health.

The ancient civilization of India, China, Greece, Arab and other Countries of the world developed their system of medicine independent of each other but all of them were predominantly plant based. But the theoretical foundation and the insights and in-depth understanding of the practice of medicine is found in the ayurvedic literatures.

The word Ayurveda is from the ancient Indian Language Sanskrit and Literally means *"Knowledge of Life"*. The Ayurvedic approach to life involves lightening and addressing the unique needs of our body, recognizing the unique needs of our body, recognizing and balancing our mental and emotional states and deepening our connection with our spirit, our essential self. Essentially the main aim of Aryurvedic medicine is "स्वस्थस्य स्वास्थय रक्षणं, आतुरस्य विकार प्रशमनं means keep the healthy person healthy and to make sick well. Thus it is a holistic medicinal practice as it mot only focus on the physical aspects of health but also the balance between physical, emotional, spiritual and psychological aspects of health.

Ph.D. Scholar, Faculty of Commerce, B.H.U., Varanasi.
Head of Department, Rasa-Shastra, I.M.S., B.H.U., Varanasi.
****Reader, Faculty of Commerce, B.H.U., Varanasi.***

The system of Ayurveda is popularly practiced in India since ancient days. The Ayurvedic system in our country starting from Vedic period till the period of Samhitas like charka shushrut and vagbhatt is full of different types of drugs utilized popularly without any untoward effects on human body. It has been a part of cultural and social life of common people of our country from ancient days. Modern medicine get wide acceptance in the whole world as it gives quick relief to the diseased person but with much side effects. While Ayurveda did not get wide acceptance due to lack of awareness among the people about the rich properties of this system.

But today we find a renewed interest in traditional medicines. During the past decade there has been an increasing demand of medicinal plant based products especially from the developed countries. This renewed interest is due to the current widespread belief that "Green Medicine" can cure the disease with little side effect and possesses the rich quality of enhancing the immunity power of human beings to fight against the diseases. So prevention and curative aspects of Ayurveda Philosophy are more rational method to adopt in present hour.

In spite of rich bio-diversity and heritage or rich knowledge of Ayurveda our country does not have much share of this multi billion market of medicinal plant based products. According to a study nearly 80% of the world population is based on medicinal plants based products for their primary health care needs. According to a EXIM bank study world market of Ayurvedic medicinal plant based product will reach nearly 60 billion $ by 2010. Our government has also identified this sector as one of the most emerging field of foreign trade and has taken some vital steps in this direction. But still we lack suitable standardization technique, quality control and efficacy of drugs. We lack a formalize and organized marketing strategy for medicinal plants based products to fulfill the demand available in domestic as well as in foreign market.

Potential of this sector at domestic level

The domestic market for Ayurvedic, herbal and plant based products is estimated to be around Rs. 300 Crores, growing at 15-20% per annum. The share of ethical formulation is only 20% of the total market, the balance 80% being accounted for by OTC products.

The sales of crude herbal drugs and extracts are of the order of Rs. 350-400 crores. These crude drugs and extracts are used by pharma industry for production of OTC products, ethical formulations, as well as traditional and home remedies.

As per an EXIM banks study, the sales of medicinal plants in India in 96-97 were Rs. 300 crores including the requirements of traditional practitioners vaidyas, and home remedies.

Where the total herbal /Ayurvedic market was Rs. 2300 crores. Assuming the same ratio it is estimated that the sales of medical plants in 2002 were around Rs. 400 crores and in 2005-06 it is estimated to be around Rs. 700 Crores. Manufacture of herbal / Ayurvedic products in India is more than a century old. There are estimated to be over 7800

manufacturing units in India, The major players being Kottakal, Arya Vaidyashala, Dabur, Himalaya, Zhandu and Baidyanath.

TOP TEN HIGHLY TRADED MEDICINAL PLANTS

Sl. No.	Botanical Name	Common Name	Part Used	Cultivated (C) / wild (W)
1.	Emblica Officinalis	Amla	Fruit, Seed	C/W
2.	asparagus Racemosus	Satawar	Roots, Leaves, Whole Plant	C/W
3.	Witbania Somnifera	Ashwagandha	Root, Leaf	C/W
4.	Teminalia cbebula	Harar	Fruit, Seed	C/W
5.	Saraca Asoca	Asoka	Stem Bark	W
6.	Aegla marmelos	Bhel	Fruit, Bark Flower, Leaf, Seed, Root	C/W
7.	Cassia Angustifolia	Senna	Leaf, Fruit	C
8.	Adbatoda Vasica	Vasa	Leaf, Flower, Root	C/W
9.	Piper Longum	Pippali	Fruit, Root	C/W
10.	Bacopa Monnieri	Brahmi	Whole Plant	C/W

Potential of this Sector in foreign trade :

The break up of Indian herbal exports valued at about Rs. 874 crores in 2001-02 clearly indicates that around 73% of our herbal exports are in the form of crude drugs and extracts and only about 27% are in the form of finished products. Export trends indicate that despite fluctuations, there has been an increase of 20% per annum in our export earning this trend is maintained and the medicinal plants exports go up to projected export of about Rs. 1758 Crore in 2006-07 and it will be projected to reach of upto Rs. 2674 crores by 2009-10

Indian exports largely in the from of crude drugs and extracts are going to six groups of countries. Over 70 percent goes to first group consisting of OECD countries followed by central and eastern Asia, Middle east and Africa. This Indicates that there is a potential demand for India herbal products in all parts of the world and the market is not only restricted to developing countries.

Leading Exporters of Medicinal Plants

(SITC Code 2924- Plants and parts of plants primarily used for pharmacy and insecticides : fresh, dried, powered)

Exporting Countries	1997	1998	1999	2000	2001
China	314015	238436	211874	2165526	199702
USA	115535	99875	104294	105215	76344
India	68534	63858	44151	79454	NA
Germany	76624	76298	65564	55514	52555
Korea Rep.	55256	49123	58624	54944	47832
Singapore	63889	49487	42689	44559	42098
France	36992	44800	45823	54344	53031
Canada	41936	43841	32777	29761	46818
Chile	32288	54321	28899	20463	22990
Poland	21939	26664	20843	18419	14817
All Countries	1099637	1041006	903954	906004	759305

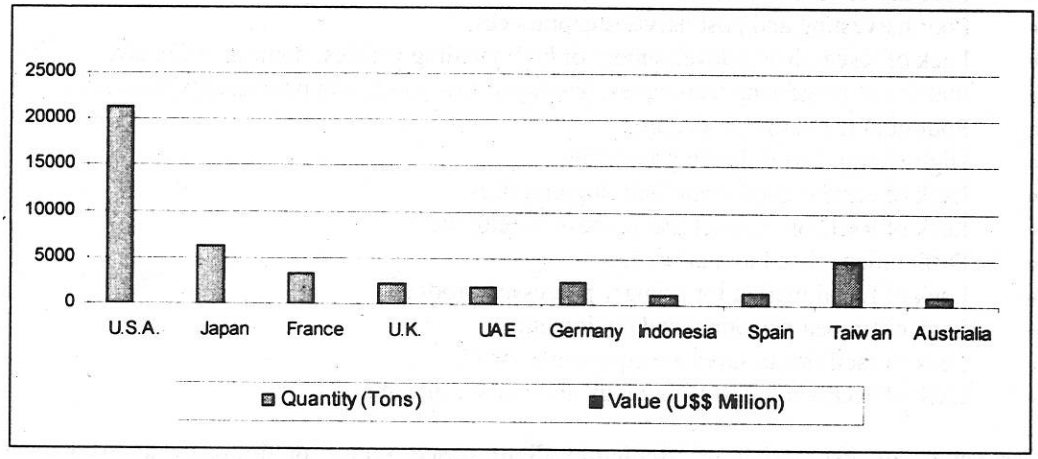
SOURCE : Trade Analysis System of ITC – Geneva

Top 10 Markets for India for Export of Plants and Plant Based Products

Sl. No.	Country	Quantity (Tons)	Value (U$$ Million)
1.	U.S.A.	21322.01	67.63
2.	Japan	6251.27	9.59
3.	France	3343.81	4.71
4.	U.K.	2128.86	4.00
5.	UAE	1861.01	3.46
6.	Germany	2375.87	3.16
7.	Indonesia	1095.04	2.97
8.	Spain	1335.45	2.65
9.	Taiwan	4688.16	2.44
10.	Australia	923.89	2.16

Source : India Trades, CMIE, and Statistics of the Foreign Trade of India by Countries, Directorate General of Commercial Intelligence and Statistics, GOI, Calcutta – 700001 (2001-2002)

_Bar diagram showing top 10 Markets for India for Export of Plants and Plant Based Products



As regard medicinal plants, India has an export share of nearly 13% in the global market which is estimated at US $ 1.03 billion. However our share is considered to be miniscule, if we consider the global herbal market, including medicines, food supplements and cosmeceuticals, which is estimated to be US $ 62 billion. In the case of both India and China given their extremely rich traditional knowledge heritages, their patterns of herbal export are disappointing. They are both currently the suppliers of raw materials and extracts though they both should be suppliers of high quality finished products.

Leading exporters of medicinal plants of the world are China, U.S.A., India, Germany and Korea, China is the leading player accounting for 26 percent of global. Exports India is the second major exporter accounting for nearly, 9 percent of global exports. Major destination of export of medicinal plants for India are USA, Japan, Germany, UK, Taiwan, Italy, France etc, According to official data released by Director general of commercial Intelligence and statistics (DGCIS). India exported medicinal plants valued at US $ 98 million in the year 2001-02. a part from that India also exported extracts totally US $ 36 Million in the same year.

Constraints in the Development of medicinal plant based sector at Domestic and foreign front

The demand for medicinal plants based products has increased significantly throughout the world. However, such products have small market share at present; though these products have high potential for development and growth at domestic as well as at international level. In order to cover under exploited and unexploited market for medicinal plant based products it is essential to organize this industry on modern lines not only at raw material but also at marketing level. At present these constraints have hampered the rapid growth of this sector.

- Poor agricultural practices.
- Poor harvesting and post harvesting practices.
- Lack of research and development of high yielding verities, domestication etc.
- Inefficient processing techniques, leading to low yields and poor quality products.
- Poor quality control procedures.
- High-energy losses due to processing.
- Lack of current good manufacturing practices.
- Lack of R&D on product and process development.
- Difficulties related to marketing.
- Lack of Local market for primary processed products.
- Lack of trained personnel and equipments.
- Lack of facilities to fabricate equipment locally.
- Lack of access to latest technology and market information.

Strategies for Promotion of Medicinal Plant based sector in domestic as well as in foreign market

At present we lack a formalize and organized marketing strategy for medicinal plant based products. So government should frame a well strategic marketing plan in participation with public, concentrating on all four Ps of marketing. For first P i.e. Product, our first objective should be to identify the medicinal plants which have its good business value in the domestic and international market. Then the objective will be to work on R & D standard and efficacy of products to place them as "Indian traditional reputed products" into the market. For second P i.e. Price, it should be fixed and standardizes at the point that it reaches to the common people with good standard and at nominal price. For third P i.e. Place (Market) a proper strategy will be framed to maintain proper distribution channels to speed up the supply of plants based products into market. Strategies should be made to explore more demand in domestic and international markets. International laws and regulations should be analyzed to

enter into different markets. For four P i.e. Promotion a proper strategy need to be framed because in the absence of proper knowledge about the rich properties of Ayurvadic medicine still people are not fully assured about these products and their desire to use it cannot be converted into demand. So promotional incentives like to aware people about the rich properties of these medicinal plants, creating a brand name of these medicinal plant based products etc. should be taken. On foreign trade front Indian needs to change its pattern of export to in order to become a globally reputed and significant

l plants and products should develop 'Gold standards' through organic cultivation, effective post harvesting, storage technologies and better extraction methodologies.

India needs to change its current 'Traders Vision' to a future 'Knowledge products vision'. The future aim of exports to achieve, in the next five years, a sale of 70 percent finished herbal products. While 30 percent of our revenues may still be derived from crude drugs and extracts. For this it would be necessary for Indian manufactures and policy makers to identify the "Best Indian plant" and their associated, "Most traditionally reputed products" for exports in each of the different global market segments.

We can benchmark our promotional polices with polices in China, Limited information available does suggest that China has a better R & D infrastructure for herbal sector, which cover the five Ps namely Good Agricultural Practice (GAP), Good Manufacturing Practice (GMP), Good Laboratory Practice(GLP), Good Clinical Practice (GCP) and Good Selling Practice (GSP). They also have fiscal incentives for farmers and manufacturers.

Conclusion

Owing to the global resurgence of interest towards Ayurvedic products, countries worldwide have been implementing coveted measures to magnify the business potential in domestic and international markets. In parlance with the paradigm shift, India is equally looking forward to initiate all possible versatile measures to create a niche in cross-national markets. Our country is lagging behind compared to its counterparts on all fronts with respect to Ayurvedic products viz., agricultural practices, laboratory practices, clinical practices and selling practices.

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Critical understanding of Pratishyay Vis a Vis Allergic Rhinitis

*Dr. Rakesh Kumar Singh, **Dr. P.S. Byadgi, ***Dr. Rajesh Kumar, ****Prof. M. Sahu

* Senior Resident,** *Lecturer,****Lecturer, ******Proessor, IMS, BHU, Varanasi-221005*

Manifestation of allergic disorders described in detail in modern medicine but such detail knowledge is not available in ayurvedic classical texts. However, scattered descriptions are made for the understanding of allergic disorders. Funda mental factors involved in the development of allergic rhinitis vis-à-vis pratishyay are kapha, vata, ama, amavisha. Their specific role is described in comparison to modern medicine are as follows. Union of antigen and antibody is the basis of an allergic reaction. According to ayurveda antigens may be ama and amavisha and antibodies are the kapha, ojas and vata.

Kapha- The incidence of allergic rhinitis fluctuated greatly from year to year but showed no trend. Peaks in hay fever coincided with peak pollen counts. No important differences were found between urban and rural locations or different parts of the country with respect to both size and timing of the peaks. Incidence was highest in children (5-14 years). According to Ayurveda kapha dominates in such age groups. During the phase of growth, influence of kapha is highlighted in all kinds of activities.

Pratishyay exacerbates during winter and after exposure to cold season. This signifies the role of kapha & vata in the pathogenesis of disease. Allergic rhinitis symptoms aggravated during cold seasons and after exposure to coldish environment. Equilibrium state of kapha and udan vata is mainly responsible for bala (strength). Any abnormality in these leads to manifestation of various disorders inside the body. Depending on the nature of abnormality, kapha manifest many disorders. For example when kapha combined with ama leading to development of sama kapha, amavata etc. It is also observed that nature of abnormal kapha and ama mimics. That is why almost all ama disorders targets mainly kapha sthana. In case of pratishyay rasa dhatugata malarupi kapha plays a vital role. Due to hypo functioning of all kinds of agnis development of ama takes place inside the body. This ama combines with rasadhatugata malarupi kapha and develops certain reaction inside the pranavaha srotas because vaigunyata is observed in pranava srotas as a result pratshyaya manifest. Due to influence of kapha disease becomes chronic, if not treated with appropriate therapeutic measures. An allergen is a substance that causes the allergic reaction. The (detrimental) reaction may result after exposure via ingestion, inhalation, injection or contact with skin. Suppression of urges, indigestion, dust & smoke,excess vocal efforts,anger,seasonal changes,excess sexual indulgence, headache,awakening in night,

excess sleep ,excess water intake,cold exposure, inappropriate posture of head manifest pratishyay. Physical agents such as light, heat, cold, dust arid mechanical irritation was capable of producing various symptoms of allergic rhinitis. Strictly speaking, the term allergic rhinitis relates to the immediate immunoglobulin (lgE) antibody mediated hypersenstivity reaction to specific allergens. Recent immunologic research has shown that histamine production and release is a complex event centering around tissue bound mast cells. In the face of stimulation by an antigen, previously sensitized lymphocytes in an allergic individual will release IgE immunoglobulin. Recent researches showed that vaman karma is one of the best remedies to correct the histamine production and it is the therapeutic remedy to purify kapha dosha.

Vata- Pranavata and udan vata are the two main vata involved in the pathogeneses of pratishyay. After the amalgamation of ama with kapha blocks the normal pathway of vata resulting into erratic functioning of vata leading to hyper secretions as a result more watery discharge comes out from the nose.

Ojas-*Aparaojas* which is half *anjali,* circulates all over the body along with *rasadhatu,* confer the body with two kinds of strength i:e physical strength and strength to resist diseases. Three varieties of abnormalities develop namely *Ojokshaya, Ojovyapat* and O*jo visramsa.*

Antibodies are Y-shaped proteins that are found in blood or other bodily fluids of vertebrates, and are used by the immune system to identify and neutralize foreign objects, such as bacteria and viruses.Cells present their antigens to the immune system via a histocompatibility molecule. Depending on the antigen presented and the type of the histocompatibility molecule, several types of immune cells can become activated.

Ama - Ama and ama visha are two different stages decide the virulence of pathogenesis. If treatment employed during ama stage, disease will be cured easily but on the contrary if disease attains ama visha stage leading to development of acute and chronic allergic reactions inside the body. When kapha combines with ama and it looses its normal functions as result kapha and ojas fails to perform their normal functions, which leads to development of allergic reactions inside the pranavaha srotas especially in nasal tract leading to development of pratishyay viz-a-viz allergic rhinitis.Tolerogen - An antigen that invokes a specific immune non-responsiveness due to its molecular form. If its molecular form is changed, a tolerogen can become an immunogen. Which is capable of eliciting (inducing) an immune response. An immunogen usually has a fairly high molecular weight (usually greater than 10,000), thus, a variety of macromolecules such as proteins, lipoproteins, polysaccharides, some nucleic acids, and certain of the teichoic acids, can act as immunogens. Antigens that are generated within the cells of the body. An antigen may also be formed within the body, as with bacterial toxins or tissue cells.

Pathogenesis

After exposing to Aetiologies mentioned above, Doshas, which are accumulated in 'Sira' get aggravated and make dosha –dushyay sammurchana in nasal passages(pranavaha srotas) leading to development of pratishyay.Prior accumulation of kapha dosha in the form of malarupi is essential. Allergic rhinitis is a hyperresponsiveness of nasal mucosa against constitutional allergens. Strictly speaking the term allergic rhinitis relates to the immediate immunoglobulin (lgE) antibody mediated hypersenstivity reaction to specific allergens. Recent immunologic research has shown that histamine production and release is a complex event centering around tissue bound mast cells. In the face of stimulation by an antigen, previously sensitized lymphocytes in an allergic individual will release IgE immunoglobulin. This IgE bends to mast cells in 'target organs' such as the nasal mucosa. Subsequent exposure to the same antigen results in the bridging of two IgE molecules on the surface of these mast cells. The interaction of the antigen and the IgE molecules effects intracellular alterations within the mast cells. Granules in which histamine had been stored undergo degenerative changes leading to histamine release into adjacent tissues.

Allergic Rhinitis can be grouped under type one and or immediate type of hypersensitivity which is mediated predominantly by IgE class of antibody, upon re-exposure to the allergens, the mast cell is prompted to release histamine and other mediators. The result is itching, stuffy and running nose along with sneezing. Various studies have reported Allergic rhinitis to be more common among Asian and black patients, this may be due to genetic and/or environment factors evident in one study by factors viz., family history and habitat. Union of antigen (ama and amavisha) and antibody (kapha,ojas and vata) is the basis of an allergic reaction. Hyper responsiveness of nasal mucosa is due to interaction between antigens and antibody resulting into development of Allergic rhinitis vis a vis Pratishyay.

The correlation between allergic rhinitis vis a vis Pratishyay has been made based on similarities in clinical presentations like white cold discharge, pale/white, appearance swelling around eyes, heaviness of head, throat irritation itching of oral cavity, cough, dyspnoea, anorexia, vomiting and heaviness of body.

THE NEWS
CONFERENCE CALENDAR

Date	Venue	Conference	Contact
17th – 18th Nov. 2007	Amritsar, INDIA	NZ-ISACON-2007	e-mail : drruchi_sgrd@rediffmail.com
14th – 16th - Dec. 2007	Udupi – 574118	International Conference Soushruthi – 2007	The Org. Sec. Saushruthi, S.D.M. College of Ayurveda Nagar Kathpadu, Udupi – 574118
26th – 29th - Dec. 2007	Visakhapatnam INDIA	55th Annual National Conference, Indian Society of Anaesthesiologists	e-mail organisingsecretary@isacon2007com
12th – 13th January 08	Varanasi- INDIA	Ayurvision NIMACON – 08	Org. Secretary, Bharat Memorial Hospital, D-47/199 Ramapura, Varanasi- INDIA
17th – 19th January 08	Maastricht	EURONEURO 2008	e-mail : info@euroneuro.eu
6th Feb. 2008	B.H.U., Varanasi	Sangyaharan Day	dnpande@gmail.com

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 favour of A.A.I.M. payable at Varanasi for purchase of Land for 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.

ROLE OF MUKTASHUKTI IN AYURVEDIC SYSTEM OF MEDICINE W.S.R.TO ITS PHARMACEUTICAL PROCESSING

***Singh , Anita **Reddy , K.R.C. ***Dubey , S.D.**

ABSTRACT

In Ayurveda, Sudha Vargiya (Calcium group) Dravyas are very much popular and some of these drugs used by the Ayurvedic physicians for curing the many diseases in different forms. Among Sudha Vargiya Dravyas, Muktashukti plays very important role in Ayurvedic System of Medicine. There is no any reference regarding Muktashukti mentioned in Ancient Literatures. Shukti is known in India from Samhita period. In Caraka Samhita, Caraka has mentioned Sukti as an ingredient of a Lepa (ointment) used to treat 'Rakta Pittavisharpa'. Muktashukti bhasma is used mainely in the indications viz, Udarashula, Jvara, Pitta Jvara, Rakta roga. Here in present study, Muktashukti bhasma has been prepared at 700°C temperature subjecting to heat in Electronic Muffle Furnace (EMF) after its proper Shodhana processing.Shodhana (purification) and Marana (incineration) of Muktashukti have been done by following Ayurvedic Formulary of India.

INTRODUCTION

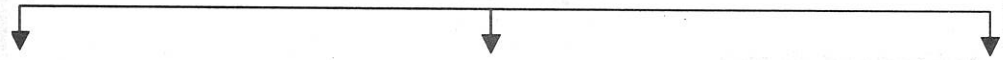
"Ayurveda", the Science of Life has been framed upon 'Trisutras' viz Hetu, Linga and Oushadha. Among these, Oushadha is held responsible for the alleviation of diseases as well as maintenance and promotion of health. The drug having plant, animal or mineral origin is like an instrument aid to a Physician.

In Ayurveda, Sudha Vargiy.a (Calcium group) Dravyas are very much popular and some of these drugs used by the Ayurvedic physicians for curing the many diseases in different forms. All these drugs are chemically more or less similar and Calcium Carbonate is the major portion of these substances. But the utility of each drug is different.

In the earlier classical texts like *Rasaratna Samucchaya, Rasarnava, Rasahrudayatantaram* and *Rasendra Chintamani;* a group like 'Sudha Varga' does not appear. But in a later text namely 'Rasamrutam' written by **Vaidya Yadavji Tricumji Acharya**, which is widely followed, this group was introduced bringing together various Bhasmas of which Calcium salts constitute as major component.

The raw material of each of the Sudha Varga Bhasma is drawn from one of the three different specific natural sources as follows –

Natural Sources of Calcium:



I	II	III
Mineral source Source	***Animal source and***	***Plant***

***Ph.D. Scholar **Reader & Head,** Deptt. Of Rasashastra *****Professor & Former Head,** Deptt. Of Dravyaguṇa, Faculty of Ayurveda, I.M.S, B.H.U.

Marine originates

a) Animal Originates

1. Churnaka (Quick Lime)
2. Khatika (Chalk)
3. Dugdha pashana (Talc)
4. Godanti (Selenite)
5. Kousheyashma (Magnesium Silicate)
6. Badarashma (Fossile *Holarrhena* Norinite)

1. Mrigashringa (Antlers)
2. Kukkutanda Twak (Egg shell)
3. Ajasthi (Goat`s Bone)
4. Hasti Danthi
5. Kurmapristha or Kurmasthi (Tortoise bone)

1. Arjuna (*Terminalia arjuna)*
2. Karanja *(Pongamia glabra)*
3. Arka *(Calotropis procera)*
4. Kutaja *antidysenterica)*
5. Kumari *(Aloe vera)*

b) Marine Originates

1. Shankha (Conch Shell)
2. Varatika (Cowrie Shell)
3. Mukta Shukti (Pearl Oyster Shell)
4. Pravala (Corals)
5. Mukta (Pearl)
6. Shambuka (Snail)
6. Samudraphena (Cuttle Fish Bone)

Among above-mentioned drugs, Muktashukti plays very important role in Ayurvedic System of Medicine. There is no any reference regarding Muktashukti mentioned in Ancient Literatures. Shukti is known in India from Samhita period. Muktashukti bhasma is used mainely in the indications viz, Udarashula, Jvara, Pitta Jvara, Rakta roga.

Descriptive Considerations: -

Name of Muktashukti in different Languages.

Eng: - Pearl oyster, bivalve

Ben. & Hindi: –Mukta-JhinukShell

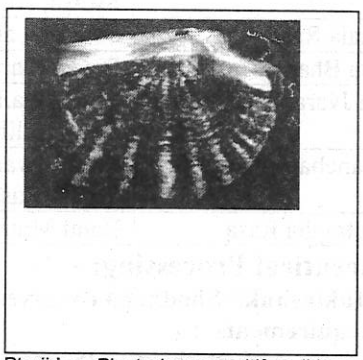
Mah. Kon. & Guj: -Motishimp.

Synonyms Of Muktashukti: -

Shukti, Shuktika, Muktamata, Muktagriha, Mahashukti, Mouktika prasava, Muktigeh, Mouktikmondiram, Mukta Sphota, Abdhimanduki, Muktaprasu.

Scientific Classification:-

Kingdom:	Animalia
ylum:	Mollusca
Class:	Pelecypoda
Order:	Pseudolamellibranchiata
Family:	Pteriidae
Genus:	Pinctada
Species	Margaritifera



Pteriidae, *Pinctada margaritifera* (Linnaeus, 1758)
Pacific Ocean,
Pearl oyster

Varieties and Physical Characters: -

Varieties: - Two varieties of Shukti are mentioned in Ayurvedic texts

i. Muktashukti
ii. Jalashukti

- **Muktashukti: -** The one in which pearl is formed.
- **Jalashukti: -** Which are not capable of forming pearls.

The properties of each variety are different, but both of them are used for medicinal purposes.

Pharmacological Properties: -

Rasa	Madhura
Guna	Snigdha
Virya	Sita
Vipaka	Madhura
Effect on Dosa	Pitta, Rakta Nashini
Karma	Dipana, Pacani, Baladayani

Therapeutic Indications: -The Shell is used in medicine after purification and reduction. Its ashes 'Shukti bhasma' are beneficial in Shula, Udarshula, Jvara, Pitta, Jwara, Rakta roga, Dyspepsia, abdominal tomours, liver and Spleen enlargements and loss of appetite.

Muktashukti is bitter in the taste, improves the appetite and taste sensation. It also reduces the urine sugar and is used in diseases like heart diseases, asthma and colics.

Dose: - 250 to 500mg

Anupana: - Honey (Madhu), Lemon juice, Ghrita and Godugdha

Shukti Containing Yogas: -

Table showing Shukti containing Formulations: -

Name of Yoga	Indication	Reference
Grahani Shardula Rasa	Arsha, Agnimandya, Kasa, Swasa, Atisara Amashula.	Bhai.Rat.8/281-285
Pravala Panchamrita Rasa	Gulma, Udara Roga ,Kasa, Swasa	Bhai.Rat.32/116-117
Maha Gandhaka	Grahani, Pravahika, Kasa, Swasa, Atisara	Bhai.Rat.8/292-300
Badavanala Rasa	Tridosha and Sannipata Jwara	Bhai.Rat. page 5/792
Astamrita Bhasma	Pradarahara Kaphagna	R.T.S.S.P.S II page26-27
Vishama Jvarantaka Loha	Vata,Pitta,Kapha,Jwara, Gulma,Pliha,Vriddhi	R.T.S.S.P.S II page 65
Mukta Panchamrita Rasa	Jirna Jwara, Manda Jwara, Vata Balasakasa	R.T.S.S.P.S II page 273
Bahu Mutragha Rasa	Bahu Mutra	R.T.S.S.P.S II page 381

Pharmaceutical Processing: -

I. **Muktashukti Shodhana** (Ayurveda *Prakasha, Adhyaya 2; 330*)

Requirements : -

i) Muktashukti: 225 gms
ii) Kanjika: Q.S. (For Svedana)
Dola Yantra, Electric heater, Cloth and Lukeworm water.

Procedure: - Muktashukti (pearl oyster shells) were taken and made into small pieces. These pieces were kept in a clean cloth and a Pottali i.e. cloth pouch was prepared. Pottali was hanged in a bowl i.e. Dola Yantra, containing Kanjika, with the help of glass rod. Then boiled with the help of electric heater continuously for 3hrs. After three hours, the heater was put off and Pottali was allowed to cool. Later the pieces were separated from cloth and washed with lukewarm water and dried.

Observation: - Shining property of the Muktashukti had been reduced.

Results: -

Initial Weight of Muktashukti: 225 gms
Final Weight of Muktashukti: 195 gms
After purification
Loss of Weight: 30 gms

This loss may be due to the removal of the sand particles during scraping of outer layer of the Muktashukti.

Precautions : -

- The level of Kanjika should be maintained throughout the process.
- Constant mild heat should be given.
- Pottali should not touch the bottom of the bowl or container

II. **Muktashukti Marana** (*Ayurveda Prakasha, Adhyaya 2; 330)*

Procedure:--

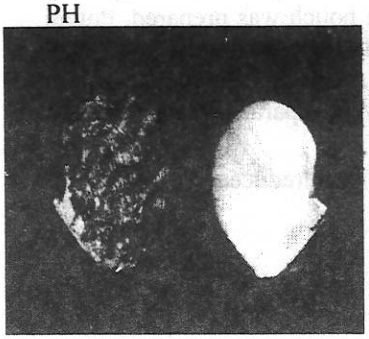
Purified Muktashukti pieces were taken in a crucible and covered with another crucible. Later this was sealed with cloth, smeared in clay and allowed to dry. After drying it was put in electric muffle furnace (EMF) and allowed to raise temperature upto 700°C and this temperature was maintained for 1 hour. Later the furnace was put off and allowed to cool by itself.

Next day the sealed crucible was taken out and opened. Muktashukti pieces were powdered, triturated with Kumari swarasa and pellets were prepared and dried. Again the same procedure was repeated for second time also.

Organo-Leptic Properties:-

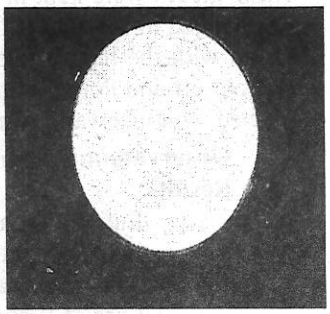
Name of Bhasma:	***Muktashukti Bhasma***
<u>On Heating:</u>	
Liberation of fumes:	NIL
Charring	NIL
Odour	Odourless
Colour	White
Touch	Smooth
Taste	Tasteless
Appearance	Lustreless Powder
<u>On Wetting:</u>	
Solvent	Distilled Water
Exothermic	Present
Endothermic	NIL
Colour of the solution	Colourless

Absorption	Normal
Settling time	Slow
PH	10.25



Muktashukti Raw Material

Muktashukti After Shodhana



Muktashukti Bhasma

CONCLUSION :---

Among Sudha Vargiya Dravyas, Muktashukti plays very important role in Ayurvedic System of Medicine. There is no any reference regarding Muktashukti mentioned in Ancient Literatures. Shukti is known in India from Samhita period. In Caraka Samhita, Caraka has mentioned Sukti as an ingredient of a Lepa (ointment) used to treat 'Rakta Pittavisharpa'. Muktashukti bhasma is used mainely in the indications viz, Udarashula, Jvara, Pitta Jvara,and Rakta roga with dosage ranging between 250mg to 500mg along with the anupana such as Honey (Madhu), Lemon juice, Ghrita and Godugdha according to Ayurvedic Formulary of India (AFI) . Muktashukti bhasma is Smooth , Tasteless , Odourless and White Lustreless Powder which was prepared after proper Shodhana and Marana processing by following AFI .

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SANGYAHARAN SHODH

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