Dr. D. N. Pande - V

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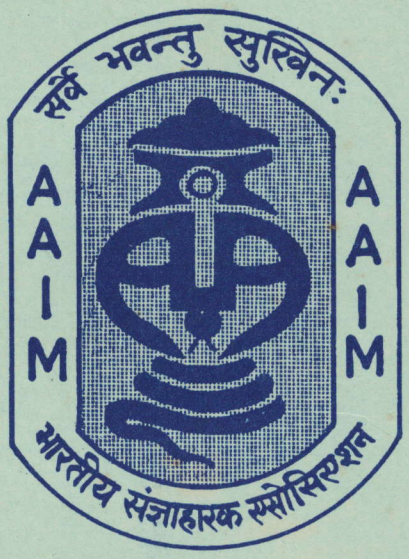

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Pharmacological Study of Darvyadi Quath on Rat and Human Uterus (Pilot Study)

Preeti Chaube*, P.N. Singh** and C.M. Tewari†, M. Sinha‡

ABSTRACT

Indian flora has been a valuable means of health care since time immortal. In fact, a large rural population is totally dependent on folklore medicines for management of common and serious ailments. Ancient Ayurvedic texts have also mentioned many commonly available medicinal plants available throughout the country for the treatment of various diseases. As part of our continued effort to provide better alternative remedy from our rich flora for health care or common people at large of rural area, particularly for various female disorders. We selected important medicinal plants which are claimed to be commonly used for the treatment of stree roga both in rural and tribal areas.

Among the Herbal drugs Daruharidra, Rasanjana, Vasa, Bilva and Bhallataka have been described as uterotonics abortifacient and claimed to be useful for other stree rogas in Ayurvedic literature.

The present study revealed that Vasa, Bilva and Bhallataka produced the potentiation of Acetylcholine induced contraction of uterine muscle, when as Daruharidra and Rasanjana have been found to prevent the contractions of uterine muscle induced by acetylcholine.

On the basis of the pharmacological study, Vasa, Bilva and Bhallataka are potent abortifacient agent which may be used for induction of labour. While Daruharidra and Rasanjana have been found in parallence to tocolytic agents.

Thus investigations of the above mentioned drugs provided valuable informations justifying their applications in stree rogas as in Shweta Pradar (Leucorrhea).

KEY WORDS

Darvyadi Quath, Shweta Pradar, Daruharidra, Rasanjana, Vasa, Bilva, Bhallataka, Rasa, Guna, Virya, Vipaka, Yoni Shodhak, Virna, Ropak.

INTRODUCTION

Indian flora has been a valuable means for health care since time immortal. In fact a large rural population is totally dependent on folklore medicines for management of common and serious ailments. Ancient Ayurvedic texts have also mentioned many commonly available medicinal plants available throughout the country for the treatment of various diseases. As part of our continued effort to provide better alternative remedy from our rich flora for health care or common people at large of rural area, particularly for various female disorders. We selected important medicinal plants which are claimed to be commonly used for the treatment of stree roga both in rural and tribal areas.

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Among the Herbal drugs Daruharidra, Rasanjana, Vasa, Bilva and Bhallataka have been described as uterotonics abortifacient and claimed to be useful for other stree rogas in Ayurvedic literature.

Therefore, it was thought to have a pharmacological study on rats and human uteri to see the effect of ingredients of Darvyadi Kwatha individually and as a whole also.

MATERIAL AND METHOD

1. The drugs used

Table 1. Ingredients of Darvyadi Kwatha

General Name	Hindi Name	Latin Name	Parts Used
Daruhaldi	Daruharidra	Berberis aristata (Berberidaceae)	Root
Rasaut	Rasajana	–	Darvighana satwa
Bela	Bilva	Aegle marmelos (Rutaceae)	Fruit
Kirattikta	Chiraita	Swertia Chirayita (Gentianaceae)	Panchanga (whole plant)
Motha	Musta	Cyperus rotundus (Cyperaceae)	Tuber
Bhilawa	Bhallataka	Semecarpus anacardium (Anacardiaceae)	Fruit (Sodhita)
Adusa	Vasa	Adhatoda vasica (Acanthaceae)	Root, leaves and flowers

2. Preparation of Kwatha (Decoction)

12.6 gms of each drug was boiled in 200 ml of water and evaporated till 25 ml of extract was left and sieved.

3. Preparation of the tissue for experiment

Isolated rat uterus of female albino rats of 100-150 gm were used for experiments (Diamond and Brody, 1966).

Stilbeisterol 0.1 mg/kg was injected subcutaneously to rats 24 hrs before experimentation in order to bring the uterus in diestrous stage. The rat was sacrificed by means of a blow on the head, the abdomen was opened by a middle incision and the two uterine horns were exposed into view. Both the horns of the uterus were carefully separated from the adjacent fat and connective tissue. After careful cleaning of tissue ligatures were placed at each end of the horns by means of a thread.

The horn was next fixed in an isolated thermostatically controlled organ bath of 15 ml capacity containing De Jalone's solution (De Jalone et al, 1994) and was aeriated with oxygen at a constant rate.

The tissue was fixed in the isolated organ bath by tieing one end of it to the air tube and another to the writing lever. The load and magnification of the lever was kept approximately 0.6 gm and 6 fold respectively. The temperature of the organ bath was maintained constant at 30-31^{o}C.

The tissue was allowed to rest and get stabilize for about 30 min, by the bath solution at every 5 min interval, before being used.

The tissue was always tested at the beginning of the experiment, for its sensitivity by myotropic agent like Acetylcholine (Ach). The effects of pretreatment of different doses of the drugs on control spasm included by Ach (0.1-0.2 mcg/ml) were recorded.

The similar procedure except oestronising was adopted for human uterine muscle obtained from hysterectomised uterus. The healthy portion of this uterus muscle was removed and a strip for experiment was obtained. Experiment was conducted at 37°C of temperature.

4. Preparation of the Ringer Solutions

The De Jalones and modified Locks solution were used for rat and human uterus respectively.

Table 2. Composition of Ringer Solutions

Contents	De Jalones	Modified Locks solution
NaCl		9.00 gm
KCl		0.42 mg
$CaCl_2$		0.24 gm
$NaHCO_3$		0.50 gm
Glucose		1.00 gm
$MgCL_2$		–
Water		1000 ml

OBSERVATIONS

1. Daruharidra

It was found that it didn't show any effect on rat uterine contraction induced by Ach.

2. Rasanjana

It has been found to block significantly the tissue contraction induced by Ach. It is also interesting to note that the increase in the concentration of drug gradually increases the blockage of uterus contraction induced by Ach and at a dose of 1mg/ml it completely block the effect of Ach on rat uterus muscle (Fig. 1)

[1 = 0.05 ml ACh; 2 = 0.05 ml R + 0.05 ml Ach; 3 = Ach 0.05 ml; 4 = R 0.1 ml + 0.05 ml Ach; 5&6 = 0.05 ml Ach and 7,8&9 = 0.05 ml Ach]

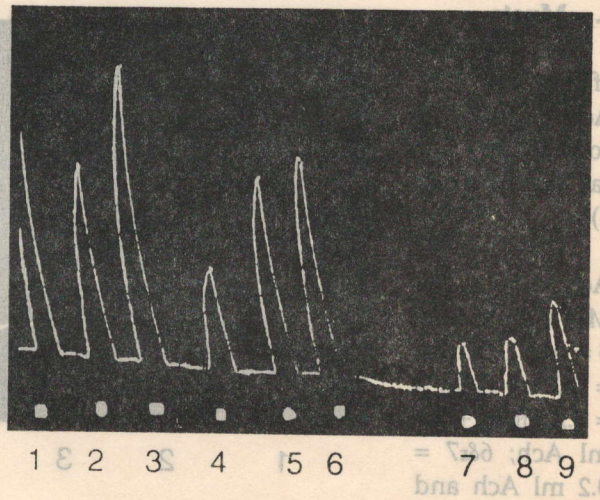


Fig. 1. Effect of Rasanjana on isolated oestronised rat uterus.

3. Bilva

It showed potentiation of Ach induced contraction in rat uterus. As

Fig. 2. Effect of Bilva decoction on isolated oestronised rat uterus.

the concentration of drug increases there was gradual increase in the potentiation effect which was found to be nearly 50% (Fig. 2).

[1 = 0.1 ml Ach; 2 = 0.4 ml B + 0.1 ml Ach; 3 = Ach 0.1 ml; 4 = 0.8 ml B + 0.1 ml Ach; 5 = 0.1 ml Ach; 6 = 1.6 ml B + 0.1 ml Ach and 7 = 0.1 ml Ach]

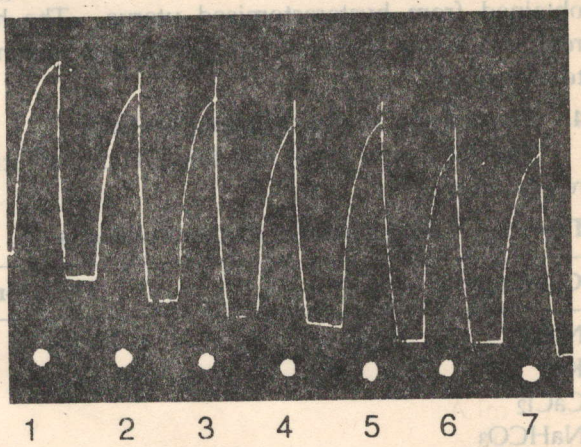


Fig. 3. Effect of Chiraita decoction on isolated oestronised rat uterus.

4. Chiraita

It didn't show any significant effect except a slight depression of muscle contraction induced by Ach (Fig. 3).

[1 = 0.2 ml Ach; 2 = 0.1 ml C + 0.2 ml Ach; 3 = Ach 0.2 ml; 4 = 0.2 ml C + 0.2 ml Ach; 5 = 0.2 ml Ach; 6 = 0.3 ml C + 0.2 ml Ach and 7 = 0.2 ml Ach]

5. Musta

It has no effect on the Ach induced contraction of rat uterus (Fig. 4).

[1 = 0.2 ml Ach; 2 = 0.1 ml M + 0.2 ml Ach; 3 = Ach 0.2 ml; 4 = 0.2 ml Ach; 5 = 0.2 ml M + 0.2 ml Ach; 6&7 = 0.2 ml Ach and 8 = 0.3 ml M + 0.2 ml Ach]

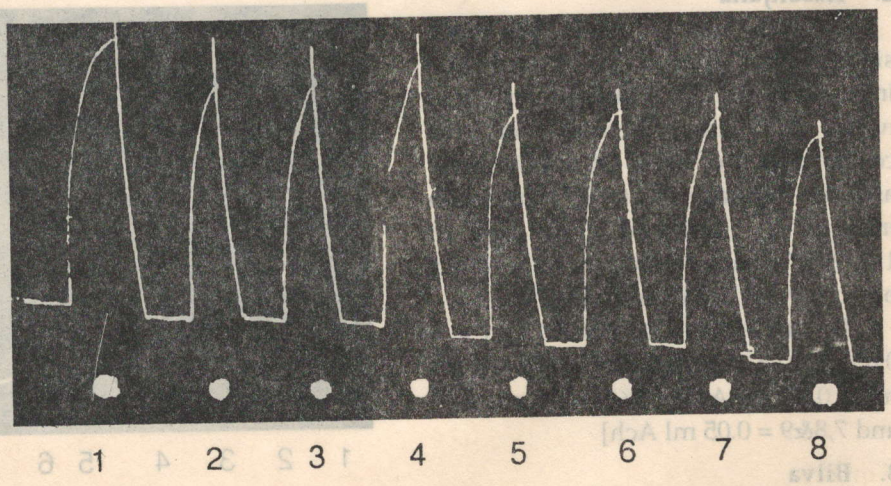


Fig. 4. Effect of Musta decoction on isolated oestronised rat uterus.

6. Bhallataka

It has been found that Bhallataka is very small dose 10.25 µg/ml produced a slight potentiation of rat uterus contraction induced by Ach but it's high doses was found that if partially antagonise the contraction of rat uterus induced by Ach (Fig. 5).

[1 = 0.1 ml Ach; 2 = 0.05 ml B + 0.1 ml Ach; 3&4 = Ach 0.1 ml; 5 = 0.1 ml B + 0.1 ml Ach; 6 = 0.1 ml Ach and 7 = 0.15 ml B + 0.1 ml Ach]

7. Vasa

It has also seen that Ach induced contraction of rat uterus was potentiated gradually by a gradual increase in the drug concentration. It is also interested to note that about 2 mg/ml of the drug was found to produce nearly 50% potentiation of Ach induced contraction (Fig. 6).

[1 = 0.1 ml Ach; 2 = 0.15 ml V + 0.1 ml Ach; 3 = 0.1 ml Ach; 4 =- 0.1 ml Ach; 5 = 0.3 ml V + 0.1 ml Ach; 6 = 0.1 ml Ach; 7 = 0.4 ml V + 0.1 ml Ach; 8&9 = 0.1 ml Ach; 10 = 0.6 ml V + 0.1 ml Ach; 11&12 = 0.1 ml Ach; 13 = 0.5 ml V + 0.1 ml Ach and 14 = 0.1 ml Ach]

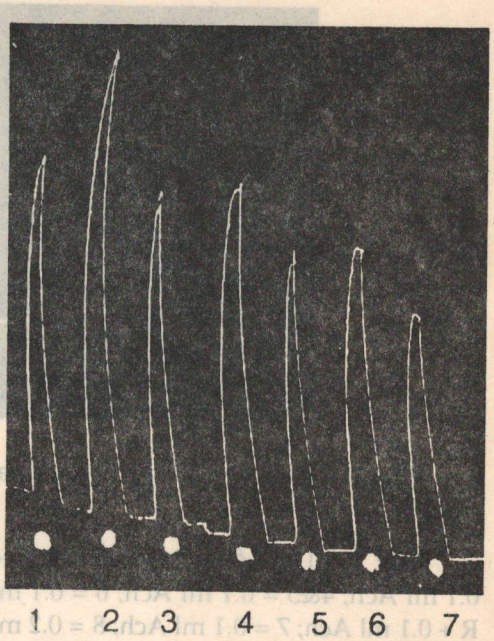


Fig. 5. Effect of Bhallataka decoction on isolated oestronised rat uterus.

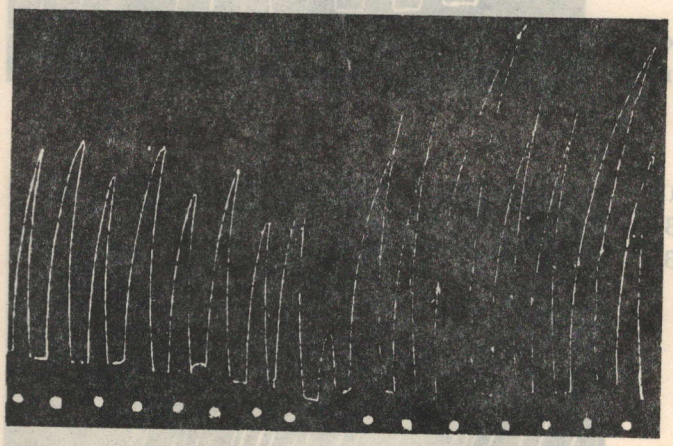


Fig. 6. Effect of Vasa decoction on isolated oestronised rat uterus.

8. Darvyadi Kwatha

It has been found that in small doses it blocks the Ach induced contractions of rat uterus partially but in large doses there was no effect on Ach induced contractions (Fig. 7).

[1 = 0.1 ml Ach; 2 = 0.05 ml D + 0.1 ml Ach; 3 = 0.1 ml Ach; 4 = 0.2 ml D + 0.1 ml Ach; 5,6&7 = 0.1 ml Ach; 8 = 0.3 ml D + 0.1 ml Ach; 9 = 0.1 ml Ach; 10 = 0.4 m D + 0.1 ml Ach; 11,12&13 = 0.1 ml Ach; 14 = 0.5 ml D + 0.1 ml Ach and 15 = 0.1 ml Ach]

Similar observations were observed when the experiment was done on human uterine muscle (Figs. 8-14).

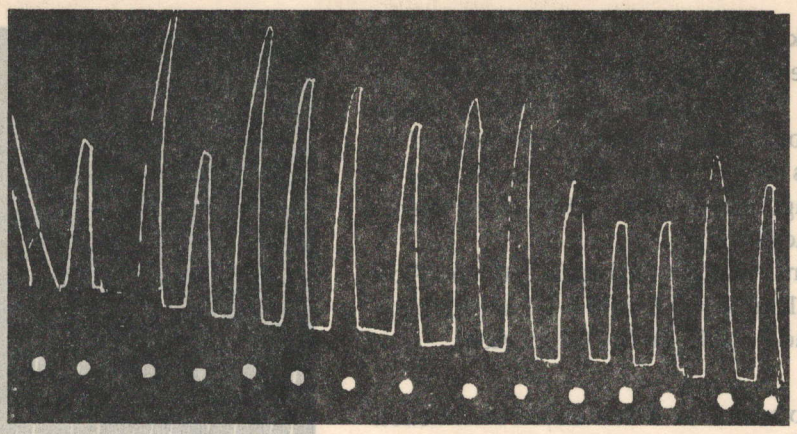


Fig. 7. Effect of Darvyadi Kwatha (decoction) in isolated oestronised rat uterus.

[1&2 = 0.1 ml Ach; 3 = 0.05 ml R + 0.1 ml Ach; 4&5 = 0.1 ml Ach; 6 = 0.1 ml R + 0.1 ml Ach; 7 = 0.1 ml Ach; 8 = 0.2 ml R + 0.1 ml Ach and 9 = 0.1 ml Ach]

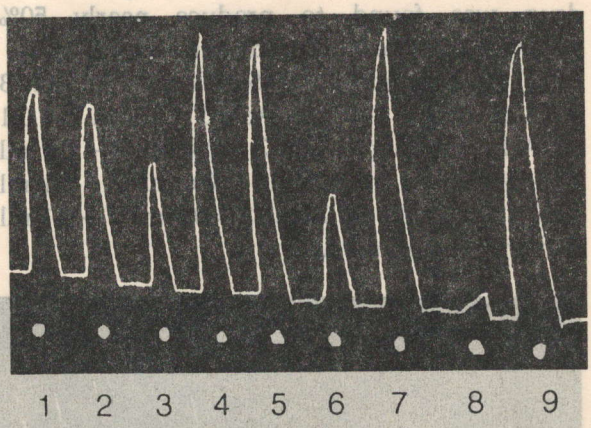


Fig. 8. Effect of Rasanjana decoction on isolated human uterine muscle.

[1 = 0.1 ml Ach; 2&3 = 0.1 ml B + 0.1 ml Ach; 4 = 0.1 ml Ach; 5&6 = 0.2 ml B + 0.1 ml Ach; 7 = 0.1 ml Ach; 8 = 0.2 ml B + 0.1 ml Ach and 9&10 = 0.1 ml Ach]

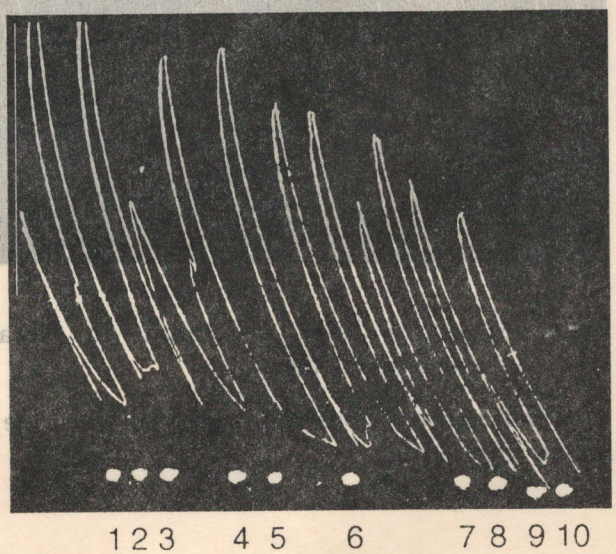


Fig. 9. Effect of Bilva decoction on isolated human uterine muscle.

[1 = N; 2 = N; 3 = 0.1 ml Ach; 4 = 0.2 ml C + 0.1 ml Ach; 5 = 0.1 ml Ach; 6 = N; 7&8 = 0.1 ml Ach; 9 = 0.4 ml C + 0.1 ml Ach and 10 = N]

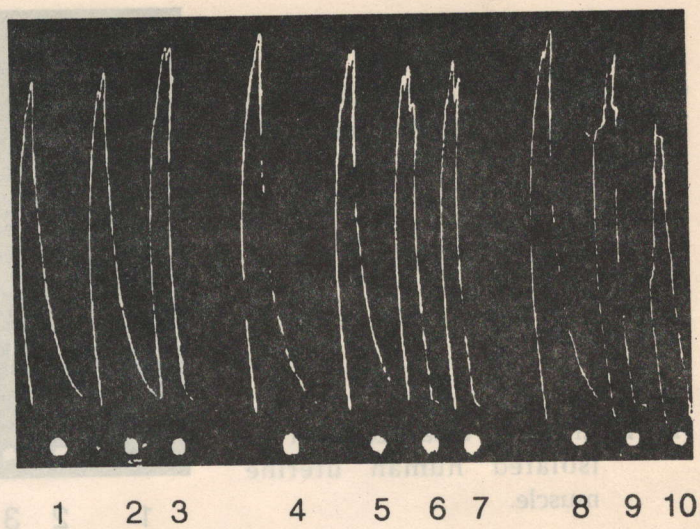
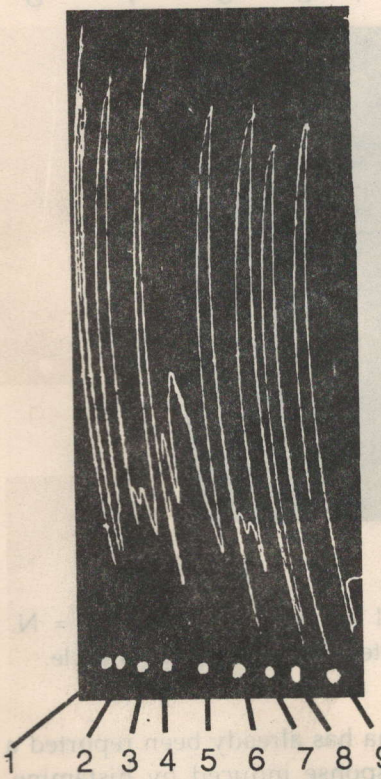
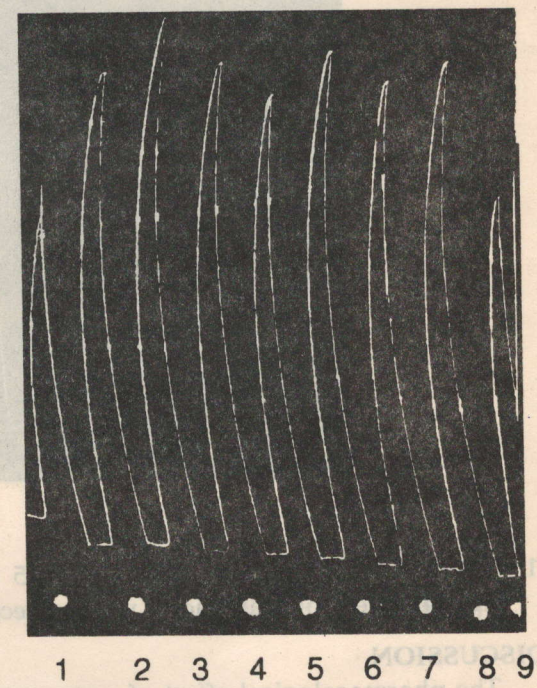


Fig. 10. Effect of Chiraita decoction on isolated human uterine muscle.



[1&2 = 0.1 ml Ach; 3 = N; 4 = 0.1 ml M + 0.1 ml Ach; 5 = N; 6 = 0.1 ml Ach; 7 = N; 8 = 0.2 ml M + 0.1 ml Ach and 9 = 0.1 ml Ach]

Fig. 11. Effect of Musta decoction on isolated human uterine muscle.



[1 = N; 2 = 0.1 ml Ach; 3 = 0.1 ml B + 0.1 ml Ach; 4&5 = 0.1 ml Ach; 6 = 0.2 ml D + 0.1 ml Ach; 7 = 0.1 ml Ach; 8 = 0.4 m C + 0.1 ml Ach; 9 = 0.3 ml C + 0.1 ml Ach and 10 = N]

Fig. 12. Effect of Bhallataka decoction on isolated human uterine muscle.

[1 = N; 2 = 0.1 ml Ach; 3 = 0.2 ml M + 0.1 ml Ach; 4 = 0.1 ml Ach; 5 = 0.4 ml M + 0.1 ml Ach; 6 = 0.1 ml Ach; 7 = 0.1 ml M + 0.1 ml Ach and 8 = 0.1 ml Ach]

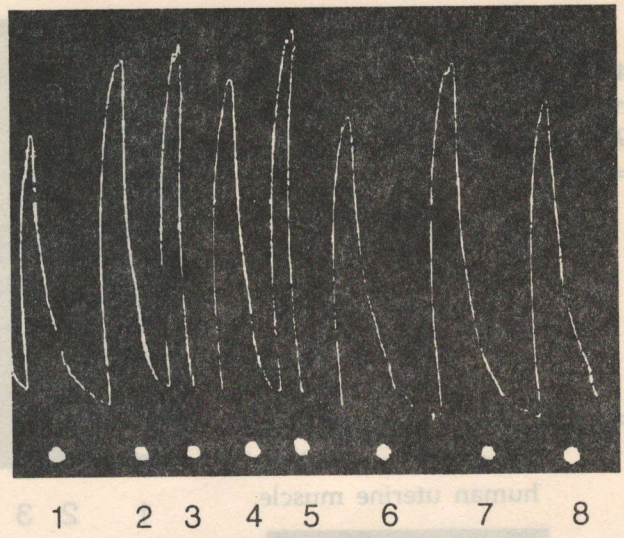
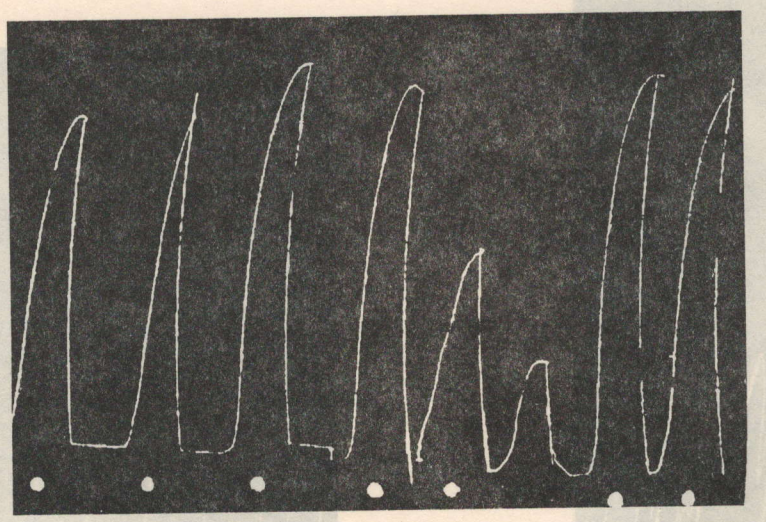


Fig. 13. Effect of Vasa decoction on isolated human uterine muscle.



1 = N; 2 = N; 3 = 0.1 ml Ach; 4 = N; 5 = 0.4 ml D 0.1 ml Ach; 6 = N and 7 = N.

Fig. 14. Effect of Darvyadi Kwatha (decoction) on isolated human uterine muscle.

DISCUSSION

The pharmacological effect of water extract of Rasanjana has already been reported a depressant effect on the contraction or on contraction response induced by histamine, bradykinin and 5-HT in intestinal strip and uterus of rats (Dutta and Iyer, 1968; Sabir, 1969). In the present study Rasanjana, Chiraita and Bhallataka (in high doses) all these three drugs produced a depressant effect on the response of Ach in rat uterus, whereas they did not produce relaxation of it's own. It has also been found that Rasanjana is most effective in all three mentioned drugs. In this study, Rasanjana completely antagonise the response of Ach in uterus which may be due to blockage of muscarinic receptor of Ach in

smooth muscle, so the drug is acting as muscarinic receptor antagonist e.g. atropine as parasympatholytic action.

Thus, this effect of the drug may be therapeutic applications in preventing premature contractions of uterus as in premature labour and abortion.

Bhallataka in small doses produced a potentiation of Ach induced contractions in uterus which may be becasue of an inhibition of choline esterases fascilitating the availability of Ach in smooth muscle.

In present investigations the other two drugs i.e., Bilva and Vasa produced potentiation of Ach induced contraction response of uterus prooves the earlier investigatiaons (Gupta et al, 1977; Bakhloo et al, 1979). Thus, these drugs may be acting as anticholine esterases by inhibiting the choline esterases and fascilitating the Ach concentrations in the tissue.

So, the drugs may be used as in induction of labour and for therapeutic mid trimester abortions.

From the Ayurvedic point of view if look in the pharmcodynamic properties of the drugs mentioned in ayurveda conforms the pharmacological observations as stated above. Sothahara property of all the drugs refers to the anti-inflammatory action of the ingredients. Further, yonidoshahara, anti-pradara, Shulanashaka, vranaropaka all these properties also refers to 'Yonishokhaka', by virtue of it's anti-inflammatory soothing property. Thus the perusal of all the drugs given above in the discussion clearly infers that the pharmacological action of the drug on the uteri muscle were really right observation.

CONCLUSION

From the perusal of the above observations and statements it can be clearly stated that Darvyadi kwatha has a definite role in the various yoni rogas without having any complications.

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Management of tension headache by an *āyurvedic* procedure *sirodhārā*

Tiwari C.M.*, Dwivedi K.K.**, Dwivedi Bhawana† and Sharma P.R.‡

ABSTRACT

Śirodhārā therapy is popular treatment for tension headache in *āyurvedic* practitioners of Kerala region. *Medhya kasāya śirodhārā* was tried on 20 patients of tension headache. This article reports the outcome obtained from this study.

KEY WORDS

Śirodhārā, Vātika śirahśūla, Medhya kasāya, Dronī etc.

With the growing level of anxiety, stress and other factors in the present day society, the incidence of tension headache is rapidly increasing throughout the world. The terms tension headache and muscle contraction headache are similar to *vātika śirahśūla*. It is used for the common headache experienced by almost everyone at one time or another. The term implies that emotional tension is a precipitating mechanism. However many patients with this condition often seem to have the headache as a response to the normal stresses of everyday life rather than due to specific emotional events. As such headache requires frequent consumption of analgesics, there is always a risk that some patients develop some iatrogenic disease.

Śirodhārā a specific type of therapy based on *Keraliya pañcakarma* is traditionally used for the treatment of varieties of diseases of head. This procedure has been found to be very effective in patients of different types of mental diseaes; diseases of eye, ear, nose and throat; neurological problems such as facial palsy etc. Hence in the present study attempts were made to study the efficacy of *medhya kasaya sirodhara* on tension headache or idiopathic headache as no satisfactory treatment is available so far.

According to *ayurvedic* classics the drugs promoting the *medha* (intellect) are termed as *medhya* drugs contain anxiolytic and antidepressant effect as proved by recent researches. With this background some *medhya rasayana* drugs specially described in *ayurvedic* classics were selected for clinical trial. These drugs were in form of decoction of following drugs - jatāmamsī (Nardostachys jatamanshi), *SAMKHAPUSPI* (Convolvulus pluricaulis), Brahmi (Bacopa monieri), *mandūkaparani* Centella asitatica (etc.).

In *dhārā* karma medicated oils, milk ghee, decoction or butter milk placed in a *dhara* pot hanged four inches above the forehead are allowed with specific rate to trickle slowly through dhara *vartika* on the forehead of the patient lying below on a *droni* (fig.).

MATERIAL AND METHODS

Patients were selected from outdoor and indoor patient department of Kayachikitsa, S.S. Hospital, Banaras HIndu University during the year 1996-1997 on the basis of previous and present history of headache including other symptoms of tension.

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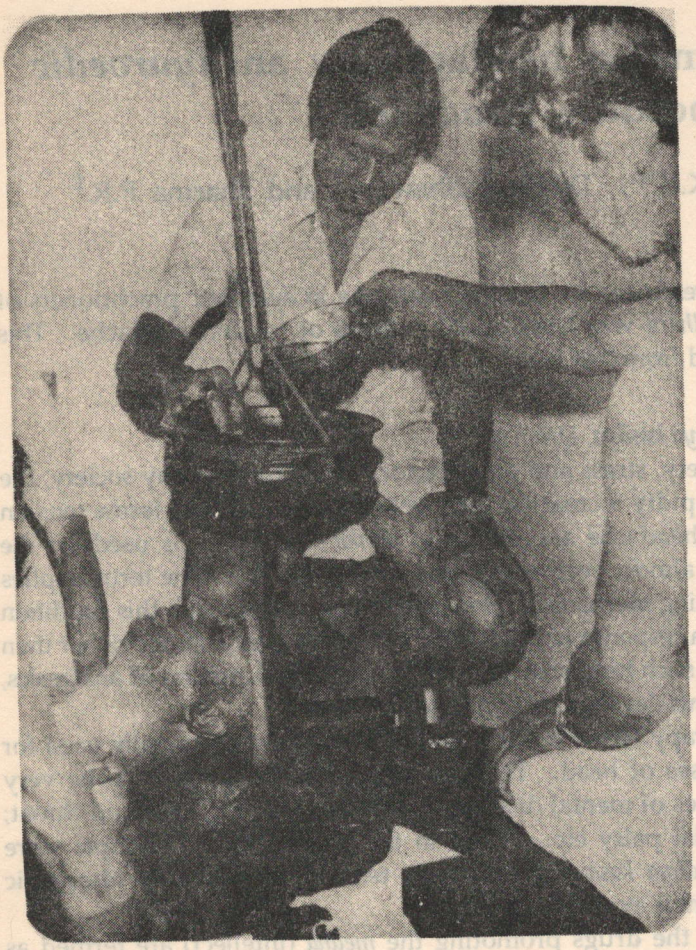

Fig. A Case Receiving "Shirodhara" Treatment.

Patients were interviewed for demographic, clinical and laboratory profile along with mental status examination. After confirmation of diagnosis *dhara* therapy was given for three weeks in each patient.

All the patients were explained about the methods of treatment and instructions which they have to follow, during the course of treatment. In morning hours after light breakfast patient were called to *pancakarma* therapy unit.

Prior to administration of *dhārā, narāin taila* was applied on the head and forehead. Patient was placed on *droni* (dhara table) in *savasana* posture or maximum relax posture. Eyes were closed and protected with cotton pad. The luke warm *medhya kasaya* was in *dhara atra* and it was allowed to flow on forhead of the patient from the height of 4 fingers through *varti* the decoction was recollected in a vessel at the floor falling from the head of the patient and it was repoured in the vessle. This process was continued for 30 minutes daily.

After the *dhara* treatment the head of the patient was cleaned with the help of luke warm water and cloth. After 10 minutes of rest, allowed to go for the routine work.

Preparation of Decoction

50 gm *medhya kasāya* drug was boiled in two litres of water till it become one litre. Kept it for some time so it may turn into luke warm. Filtered it and now it is ready for *sirodhara* purpose.

Exclusion Criteria

The following type of patients of headache were not included in this study.

(a) The patients having signs and symptoms of hypertension, intra cranial space occupying lesion, increased intracranial pressure, trauma over head etc.

(b) The patients who had associated symptoms like nausea, vomiting, aura, behavoural changes, altered sensorium, mental confusion were also excluded.

(c) The patients with positive changes in X-ray PNS were also not included in this study.

(d) The patients who had associated diminished vision and refractory errors.
(e) Headaches of delusional, conversion or hypochondrical states.
(f) The patients having symptoms of vascular headache of migrain type.
(g) The patients having headache associated with other medical or psychiatric illnesses.

Inclusion Criteria

The patients having following symptoms were selected for this study. The diagnosis was made on the basis of symptomatology and by considering the above mentioned exclusion criteria.

(a) The patients suffering from chronic headache but not relieved by oral treatment like analgesics, tranquilizers etc.
(b) A sensation of wooliness, fullness or pressure over the head.
(c) The patients having feeling of tight band encircling the head.
(d) Bifrontal or bitemporal or diffuse extension of pain ovr the top or cranium.
(e) The patients having occipital aching or pain in neck muscles.
(f) Giddiness or myzzy feeling as if one is about to faint.

Scoring of Symptoms

(a) Intensity of headache was rated with the help of four grade (0-3) rating scale with following valuation.
  0 = Asymptomatic (when no headache exists).
  1 = Mild symptom (when symptoms are not hampering the routine work of the patient).
  2 = Moderate symptom (when symptoms moderately hamper the routine work of the patient).
  3 = Severe symptom (when symptoms totally hamper the daily routine of the patient but without drug dependency).
(b) The duration of pain was recorded in all cases before and after treatment in hours/24 hours.
(c) Over all result of treatment was assessed with the help of a four grade (0-3) rating scale.
  0 = Complete relief (if there is no headache).
  1 = Moderate relief (if improvement is reduced by 50%).
  2 = Partial relief (if improvement is reduced by 25%).
  3 = No relief (if there is no change/status quo).

Criteria of Assessment

The following parameters were adopted for evaluation of the therapeutic efficacy.

(I) Clinical symptomatic relief in terms of
  (a) Reduction in grade of intensity/severity.
  (b) Reduction in duration of headache in hours.
  (c) Over all improvement in terms of percentage.
(II) Improvement in other associated symptoms like nervousness, palpitation, sleeplessness, irritability etc.

OBSERVATION AND RESULTS

The present study is based on a retrospective assessment of clinical therapeutic evaluation of 20 cases of tension headache with *Sirodhara* therapy.

Table 1. Effect of *Sirodhara* on reduction of intensity of the headache in 20 cases.

Sl. No.	Intensity	Score	Before Treatment		After Treatment		
			No. of Patient	Score	No. of Patient	Score	
1.	0	0	0	0	6	0	t=3.56
2.	+	1	4	4	7	7	P<0.001
3.	++	2	7	14	4	8	highy
4.	+++	3	9	27	3	9	significant
Total			45		24		
Mean			2.25		1.20		
S.D.			± 0.786		± 1.06		
S.E.			0.0312		0.056		

Table 2. Effect of *Sirodhara* treatment on duration of pain in 20 cases.

	Pain in hours		Comparison B.T. Vs. A.T.
	Before Treatment	After Treatment	
Mean	18.65	10.75	t=3.95
S.D.	±7.72	±8.51	P<0.001 highy significant

Table 3. Total response of *Sirodhara* therapy in 20 cases of tension headache.

Sl. No.	Response After treatment	No. of Patients	Percentage
1.	Complete relief	6	30.0
2.	Moderate relief	6	30.0
3.	Partial relief	5	25.0
4.	No relief	3	15.0

(A) Reduction of Intensity

It is evident from Table I that out of 20 patients 6 patients were relieved completely and 7 patients relieved moderately and kept in grade 1. Score difference between and after treatment was found highly significant (P<0.001).

(B) Reduction of Duration

The average duration of pain were estimated before and after treatment. It was found that after treatment with the trial therapy the duration of headache reduced significantly (Table II).

(C) Total Response of *Sirodhara* Therapy

The short term clinical trial showed a definite beneficial effect in all cases. However for a proper assessment of the results, it was decided to categorise in terms ofthe degree of response. The results of this analysis shows that out of 20 cases six have been cured, six

moderately relieved and five partially relieved. Of course three have not been relieved from the treatment (Table III).

(D) Response to the Associated Symptoms

Tension headache is usually associated with other symptoms and the Table IV is suggestive of decrease in symptoms.

Table 4. Effect of *Sirodhārā* treatment on symptom profile in 20 cases of tension headache.

Sl. No.	Associated Symptoms	Before Treatment		After Treatment	
		No. of Patients	%	No. of Patients	%
1.	Nervousness	2	10.0	0	0
2.	Irritability	3	15.0	1	5.0
3.	Eye Complaints	2	10.0	1	5.0
4.	Giddiness	2	10.0	0	0
5.	Sensation of Wooliness / Fullness / Pressure on Head	4	20.0	1	5.0
6.	Sleeplessness	12	60.0	2	10.0
7.	Palpitation	4	20.0	1	5.0
8.	Any other Symptoms	1	5.0	0	0

DISCUSSION

Basal obsrvations in 20 cases of tension headache show that intensity and duration were reduced significantly ($P<0.001$) after treatment. The distribution of finally treated patients after 3 weeks of therapy in terms of above four groups showed that 30% patients completely relieved. 30% had moderate relief while 25% showed partial improvement.

Thus it is obvious that the patients treated with *medhya kasāyā sirodhāra* were definitely benefitted by this therapy. However a large number of patients and follow up would be necessary to establish the actual utility of *medhyā kasāyā sirodharā* in the over all management of tension headache.

Regarding the mode of action, no sure mechanism can be given but some hypothesis can be presented.

(a) Passive meditation effect with relaxation response
(b) Muscle relaxant activity
(c) Medhya effect

There seems to be a substantial scope of using this therapy as safe and moderately effective remedy. Further studies on scientific footings are strongly suggested because the actual potential of the therapy can not be commented unless a large group of patients and follow up is undertaken. Further studies are in progress with the authors of this paper and will be presented in future.

CONCLUSION

The overall results of treatment suggested that *medhyā kasāyā sirodharā* reduce the intensity and duration of headache. The headache was completely or partially relieved in most of the

patients. Thus it may be concluded that the *sirodhara* appear to be potentially useful and safe remedies for treatment of tension headache. The present study reveals that *sirodhara* produces a relaxation response comparable to meditation. This procedure appears to be a safe and effective non pharmacological therapy for tension headache.

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Evaluation of "V-Gel" in the Cases of Vaginitis/Cervicitis

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ABSTRACT

One of the most common problem of women is 'Vaginitis', that challenges the gynaecologists. It may kindly be referred as the term 'umbrella' i.e., inflammatory and infectious conditions affecting the vaginal mucosa, vulvitis, cervicitis etc.

It can be argued convincingly that women are more susceptible to the microbial as well as fungal infections, that may increase vulnerable to infection, anatomically as well as hormonal point of view. The vagina makes an ideal reservoir for the infected body fluid and is likely to experience minute tear and abrasion due to intercourse allowing entry of pathogenic organisms both endogenous and exogenous. Hormonal imbalance also play an important role in the above pathogenesis.

Till today no proper remedy has been evolved for this disease entity. However, The Himalaya Drug Company has formulated a combination of the drugs by the name of "V-Gel" containing fifteen indigenous drugs like - *Barberis aristata, Boerhavia diffusa, Vitex nirgundo, Lawsenia inermis, Azadracta indica, Cedrus deodara* etc. for this problem. We are fortunate enough to get the drug for the clinical trial as a small project from Himalaya Drug Company. The response of the drugs were observed at various levels as on sign/symptoms, microbial organisms and fungi. The promising response of the drug "V-Gel" was noted at all the levels.

KEY WORDS

Rasa, Guna, Virya, Vipaka

INTRODUCTION

Vaginitis and cervicitis is the common inflammatory condition of the female genitalia and one of the most common gynaecological problem seen by the practitioners. Since the ages it has been a common ailments to women on earth for all the age group. The condition is complex one due to varied aetiological factors frequently a cause may be detected but most of the time it remain observed.

The vagina is usually resistant to infection because of its acidic pH which is maintained by the production of lactic acid by Doderlin bacilli and thick protective keratinized stratified squamous epithelial layer which influence by ovarian hormone. Besides this, in certain conditions which makes women susceptible to these infection and that are more prone to having infection from the anatomical and hormonal point of view.[1]

Cervicitis and vaginitis may be caused by aerobic and anaerobic organism. The most common organism are Candida, Gonococcal, Trichomonas and other non specific Gram positive and Gram negative bacteria. Other predisposing factors are atrophic changes, vulval

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dystrophy, sexual habit, systemic infection, diabetes mellitus, nutrition, vaginal hygiene, contraceptive methods etc.[2]

Most of the cases having complaints of white discharge pervaginum burning and itching in genitalia. The discharge may be thick, watery and colour may be white, yellowish or dirty in nature.[3]

Vaginitis and cervicitis is not a negligible disorder. It should be considered as a common complaint of most of the women. Due to negligence it may lead to other complications.

To eradicate these problems modern science has advised certain anti-fungal, anti-parasitic and antibiotics. But it does not give complete permanent relief, because most of the cases have recurrence.

Therefore, looking all the etiological factors, socio-economic, hygienic and medical problems an ayurvedic pharmaceutical "The Himalaya Drug Company" has formulated a compound drug named "V- Gel" containing fifteen indigenous ingredients.

MATERIAL AND METHODS

Total thirty five patients were registered for the clinical trial, five patients were withdrawn due to their irregular visit in hospital Out Patients Department (O.P.D.). Maximum cases were of the reproductive age group came with the complaint of itching in genital region, white discharge pervaginum and other related complaints such as backache, loss of appetite etc.

Along with chief complaints, a thoroughly systemic and local examination was also done. In the same sitting microscopical examination under low power in wet preparation, pus cell, epithelial cell, trichomonas and other organisms are also identified, vaginal swab was also taken for culture and gram stain preparations.

After screening, all these patients were advised for local application of "V-Gel" in doses of 2 gm twice daily and advised to come for follow-up on 7th day, 14th day and 21st day. In each follow up, the same procedures were repeated as earlier, history and examination of each patient was done whether sign/symptoms were persisted or relieved than before. If symptoms persists then advised to continue the same treatment.

OBSERVATION

In the present clinical trial (Table 1) in relation to aetiological factors 76.67% patient had microbiological infection, 13.33% and a general debility, unhygienic condition (6.67%), psychological factor (3.3%) has been observed. Maximum patients were in reproductive age group (Table 2) (83.33%), 10% in perimenopausal group, 6.67% were in menopausal group. Along with age factor **other** associated condition (Table 3) are infertility (13.3%), pregnancy (10%), postnatal (3.33%), PID (23.34%) and non associated conditions in 50% cases has been observed.

Table 1. Aetiological factors in relation to vaginitis.

Aetiological factors	Number	Percentage
General weakness	4	13.33
Psychological factors	1	3.33
Poor hygienic conditions	2	6.67
Infections	23	76.67

Table 2. Relation of age in group vaginitis.

Age group	Number	Percentage
Reproductive age	25	83.33
Peri-menopause	3	10.00
Menopause	2	6.67

Table 3. Associated conditions in the patient of vaginitis/cervicitis.

Associated conditions	Number	Percentage
Infertility	4	13.33
Pregnancy	3	10.00
Post-natal	1	3.33
Pelvic infertility disease	7	23.34
Non-associated condition	15	50.00

In relation to clinical signs/symptoms (Table 4) as per complaints soreness (43%), itching (73.33%), and vaginal discharge (100%). In the patients, on examination, abnormal vaginal discharge found 100%, inflammed vulva in 83.33%, bad odour in 46.67%, scratch mark found only in 6.67% of the cases.

Table 4. Signs/symptoms in the cases of vaginitis/cervicitis.

Signs and Symptoms	Number	Percentage
Signs		
Soreness	13	43.33
Itching	22	73.33
Discharge	30	100.00
Symptoms		
Inflammed vulva	25	83.33
Scratch mark	2	6.67
Abnormal vaginal discharges	30	100.00
Bad odour	14	46.67

The main causative factor for vaginitis/cervicitis (Table 5) are non-specific cocci and bacilli. Bacilli (43.33%), candida (16.67%), mixed infection in 16.67% and microscopically negative patients has been found in 23.33%.

Table 5. Status of macroorganisms in the patients of vaginitis/cervicitis.

Organism	Number	Percentage
Trichomonas vaginalis	Nil	–
Candida	5	16.67
Gonocogeal vaginalis	Nil	–
Non-specific cocci/bacilli	13	43.33
Mixed infection	5	16.67
Microscopically negative	7	23.33

Initially in the cases of vaginitis/cervicitis, vaginal pH was found in maximum cases alkaline (Table 6). pH was found in normal limit in 26.67%.

Table 6. Vaginal pH in cases of vaginitis/cervicitis.

pH	Initial	
	Number	Percentage
4.5–5.5	8	26.67
5.6–6.5	12	40.00
6.6–7.5	10	33.33

The colour and consistency of vaginal discharge (Table 7) on the day of registration, yellowish vaginal discharge was 66.67%, on 7th day it had been reduced to 33.33%, further on 14th day 23.3%, pale yellow vaginal discharge it has been seen on 0 day 23.33%, on 7th day 10% and on 14th day it was only 3.33%. Dirty discharge found on 0 day 10%, while on 7th and 14th day there had not been any abnormal vaginal discharge found whereas on the 21st day none of the case has been found having any discharge and abnormal consistency.

Table 7. Colour and consistency of the vaginal discharge.

Colour and consistency	Initial	7th day	14th day
Colour			
White	–	17 (56.67)	22 (73.33)
Yellow	20 (66.67)	10 (33.33)	7 (23.33)
Pale yellow	7 (23.33)	3 (10.00)	1 (3.33)
Dirty discharge	3 (10.00)	0 (0.00)	0 (0.00)
Consistency			
Curdy thick	15 (50.00)	10 **(33.33)**	2 (6.67)
Watery	10 (33.33)	17 **(56.67)**	27 (90.00)
Mucopurulent	5 (16.67)	3 (10.00)	1 (3.33)

As Table 8 shows the clinical response of "V-Gel" are on day of registration vaginal discharge found in 100%, on 7th day it was reduced to 50% while on 14th day it remained in 33.33% of cases, Itching on 0 day was in 73.33%, on 7th day 45.46% and on 14th day it was 36.36% of the cases.

On examination on 0 day, inflammed vulva found in 83.33% of cases, whereas on 7th day 40% and on 14th day 24%. Initially scratch mark found only in 6.67% and abnormal vaginal discharge found in 100% of cases. On 7th day and on 14th day it was 36.67% of the cases. Bad odour on 0 day 46.67%, on 7th day 35.71% while on 14th day it was 7.14%.

The response of "V-Gel" (Table 9) on the microorganism candida found on 0 day 16.67% on 7th day 20% while on 14th day it was completely eradicated. Non-specific cocci bacilli on 0 day 43.33%, on 7th day 100% and on 14th day out of 43.33% it remained only in 30.77% of the cases. Mixed infection initially was found in 16.66% of the cases. On 7th day it was 60% and became microscopically negative on 14th day. Further, it was observed for all the microorganisms that all had become negative on 21st day.

Table 8. Clinical response to "V-Gel" in the cases of vaginitis/cervicitis.

Symptoms and Signs	Day 0		Day 7		Day 14	
	No.	%	No.	%	No.	%
Symptoms						
Soreness	13	43.33	1	3.33	0	0.00
Itching	22	73.33	10	45.46	8	36.36
Discharge	30	100.00	15	50.00	10	33.33
Signs						
Inflammed vulva	25	83.33	10	40.00	6	24.00
Scratch marks	2	6.67	–	–	–	–
Abnormal vaginal discharge	30	100.00	11	36.67	11	36.67
Bad odour	14	46.67	5	35.71	1	7.14

Table 9. Response to "V-Gel" on the microorganisms in the patients of vaginitis/cervicitis.

Type of Infection	Response of the Treatment (days)					
	Day 0		Day 7		Day 14	
	No.	%	No.	%	No.	%
T. vaginalis	–	–	–	–	–	–
Candida	5	16.67	1	20.00	0	0
G. vaginalis	–	–	–	–	–	–
Non-specific cocci or bacilli	13	43.33	13	100.00	4	30.77
Mixed infection	5	16.67	3	60.00	0	100.00
Microscopically negative	7	23.33	–	–	–	–

RESULT

Table 10. Result of the "V-Gel" treatment in the patients of vaginitis/cervicitis.

Clinical status	Number of days of treatment					
	7th Day		14th Day		21st Day	
	No.	%	No.	%	No.	%
Complete response	4	13.33	12	40.00	22	73.33
Partial response	18	60.00	10	33.33	8	26.67
Persistence of Symptoms	8	26.67	2	6.67	–	–

Out of 30 patients 13.33% patients got complete relief on 7th day, 40% on 14th day and 73.33% of the cases got relieved on 21st day. Partial response was found relieved on 7th day 60%, on 14th day 33.33% and on 21st day 26.67%. Persistence of the sign and symptoms was observed 26.67% on 7th day, 6.67% on 14th day while none of the cases found on 21st day i.e., all the cases have become "asymptomatic" (Fig. 1).

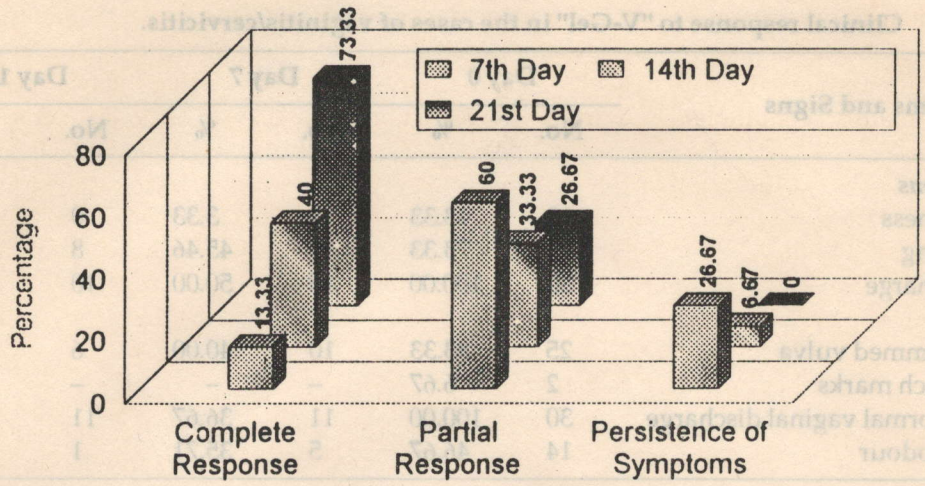

Fig. 1. Result of the "V-Gel" treatment in the patients of vaginitis/cervicitis.

Thus from perusal of the above observations it can be inferred that "V-Gel" has got a very promising result in the eradication of the chief sign/symptoms along with of microorganisms. Though in this study we have not got the patient of *Trichomonas vaginalis*, it may be due to seasonal variation. A study of seasonal variation should also be done in future because as per Ayurvedic concept krimis are more predominantly seen in the "varsha ritu" (rainy season).

DISCUSSION

The morbidity of O.P.D. of Department of Prasuti Tantra, Institute of Medical Sciences, Banaras Hindu University clearly refers the percentage of this disease entity in the women of present era. The complications long term sequelae of genitalia are also responsible for such type of morbidity which includes ectopic pregnancy, spontaneous abortions. Miscarriage, birth defects, both herpes HSV, HPV, have been also linked etiologically with lower genital tract neoplasia.[4] The major sequelae of inflammatory pelvic disease (PID) has been infertility and chronic inflammatory pain.[5,6] However this disease is experienced by each and every women of the world approximately at least one time in her life.[7]

A symptomatic vaginal colonization is often observed in the women of 20% to 40% of infertility rate.[8] Vaginal colonization and symptomatic vaginitis always aggravated due to pregnancy uncontrolled diabetes, high estrogen content, oral contraceptives and antibiotic treatment.[9]

Vaginitis, having polymicrobial disease entity the use of compound drug therapy is always beneficial for antimicrobial chemotherapy (25)[10] but the use of combined drug therapy in modern medicine becomes a constilled affair and leave many complications in patients. At this juncture 'The Himalaya Drug Company' has kindly take over the problem and formulated an indigenous compound by the name of "V-Gel" having 15 indigenous ingredients.

From the perusal of the properties of indigenous drugs it may kindly be inferred, majority of these drugs has got either krimighna action (anti-microbial, anti-parasitic, anti-fungal) or inhibits the vaginal secretion, cooling and soothing effect.

The active principle of "Neem" having anti-bacterial, anti-viral, and anti-fungal properties.[11,12] There are berbarine alkaloids in the extracts of Barberis aristata having

significant anti- inflammatory properties on acute, sub-acute, chronic type of inflammation.[13] Vitex nirgundo leaves poses anti-bacterial properties against micrococcus pyogens, E. coli etc. As it is commonly used for excessive vaginal discharge. It also accelerate the healing process in inflammatory conditions.[14] Further Lowsonia inermis leaves have also effective as anti-bacterial and used to check vaginal discharges and it also exhibits cooling effect.[15]

Permelia has got demulcent properties by virtue of which it promotes the healing whereas Eletaria cardamom is a very good anti-inflationary agent.[16] Cedrus deodara oil have anti-inflammatory activity as well as it is a good anti-fungal agent too.[17] Even essential oil of Tajetes erect's leaves is having very good anti-fungal properties.

Further, a point which is very interesting to be mentioned here that the drug "V-Gel" as a whole remarkably changes pH of vagina which itself indicative of preparing unfavourable atmosphere for further growth of microorganism.

CONCLUSIONS

Thus the above mentioned pharmacodynamic properties of Ayurveda as well as pharmaceutical point clearly confirms the result. Therefore, in our opinion the Drug "V-Gel" (A Herbal compound manufactured by The Himalaya Drug Company) may have a definite role and it should be prescribed routinely in the cases of vaginitis and cervicitis whether specific or non-specific.

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Tripods of Sangyaharan - An Ayurvedic Concept

Pandey K.K.*

सत्वात्मा शरीरं च त्रयमेतत्त्रिदण्डवत् ।
लोकस्तिष्ठति संयोगात्तत्र सर्व प्रतिष्ठितम् ।। च. सं. सू. १/४६

Unlike the existance of the whole living world, mainly based on three basic life supports i.e. Satva, Atma and Sharir, the science of life-Ayurveda is also based on Triads - Vata, Pitta and Kapha; Hetu (causative factors), Linga (sign and symptoms) and Aushadha (Drugs) Heena, Mithya and Atiyoga of Kala, Buddhi and Indriyas with the objects and so many other triads are also have been described in Charaka Samhita Sutrasthana Tristraishaniya chapter 11. Trideo - Brahma, Vishnu and Mahesh; Soma (Chandra), Surya (Sun) and Anil (Vaya) and Trisutra Ayurveda, all these suggest that importance of Tri (three) has been of prime importance since the origine of life. In the very same manner the importance of Triads has been very well understood in the science of Sangyaharan (Anaesthesia) too.

While considerig the aims of introducing sangyaharan (Anaesthesia) in medical practice - one should not feel pain during surgery, a subject should not react violently or make movements which may be harmful to the procedure as well as to the patient and to prevent any untoward effect that may follow severe ill effect.

In this way we see the three main aims of sangyaharan as -

1. **To abolish the pain before, during and after surgical procedures**
2. **To provide optimum surgical condition and**
3. **To protect patient from ill effects of surgical procedures**

The three main procedures have been described in Ayurvedic surgical texts are

1. **Poorvakarma (Pre-operative preparation)**
2. **Pradhan Karma (Main surgical procedure) and**
3. **Pashchat Karma (Postoperative management)**

Under these subheads many other procedures are included and being performed during each procedure as described in sushruta samhita. Unlike shalya karma (surigical procedure) sangyaharan can also be defined under these basic heads -

- **Pre anaesthetic preparation**
- **Main Anaesthetic procedure and**
- **Post anaesthetic management**

During these procedure one should always considerate to the traids of Charakas wordings -

त्रिविधं खलु रोग विशेषविज्ञानं भवति तद्यथा
आप्तोपदेशः, प्रत्यक्षम् अनुमानं चेति । च. सं. वि. १/३१

Modern Anaesthesia consists of following sequences - Premedication, introduction of unconsciousnes with an intravenous anaesthetic and maintenance of unconsciousness with inhalation agents like Nitrous oxide with oxygen in addition with the volatile anaesthetics or intravenous opiate analgesics with long acting muscle relaxants. The objects of premedication

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Institute of Medical Sciences, Banaras Hindu University, Varanasi.

can be achieved by the use of sedatives, hypnotics, tranquillizers and anticholenergic drugs but none of the drug is free from untoward effects.

While preparing a patient during preanaesthetic period the Ayurvedic concept and measures can play a better role as -

- **Psychological preparation of patient**
- **Physical and or physiological preparation**
- **Use of premedicant drugs specially to counteract or minimise of anaesthetics ill effects**

To achieve an ideal goal of preanaesthetic preparation, Ayurveda furthr suggests proper application of another triads -

- **Satwavajaya Chikitsa (Psychoprophylaxis)**
- **Daivaryapashraya Chikitsa and (Spiritual therapy) and**
- **Yuktivyapashraya Chikitsa (Rational therapy)**

Thus the proper application of above triads - councilling, religeous attitude and thier drug administration can minimise many of the ill effects of surgical as well as anaesthetic procedures. The term Satwavajay implies the therapeutics for mental (emotional stress) disturbances. This is secured best by restraining the mind from derive for unwholesome objects and the cultivation of Gyana, Vigyana, Courage, memory and samadhi (concentration). Whereas Daivaryapashraya therapy involves the use of mantras or incantations, aushadhi of sacred herbs, mani or precious gems, mangala or propitiatory rites - including oblation, bali or offerings and homa or sacrifices, niyama or vows, Prayaschita or ceremonial Panitence, upvas or fasts, swastyayana, or prostrations and panipad-gaman on piligrames etc. In nut shell the above both therapies minimise anxiety and apprehension during preanaesthetic period. Proper counciling and prayer of God to concern religion not only divert the apprehend mind but also encourage the patients mind (satva). Importance of poorvakarma and preoperative preparation was very well known to our ancients. Though the matters are scattered and mentioned in sutra-rupa (in short) before specific surgical procedures but are very much infromative and important as well.

Even the knowledge of Prakriti (psychophysical constitution) of a patient alone can play a major role in preanaesthetic preparation and the choice of anaesthetic technique, drugs and dose titration. The preoperative preparation of patient with the application of above mentioned ayurvedic concept will definitely add a diamond in the anaesthesia armoury.

Pradhankarma - the main sangyaharan (anaesthesia) procedure is composed of three basic components i.e. to provide analgesia, unconsiciousness and skeletal muscle relaxation. The advanced drugs used for these purposes nodoubt have added a new chapter in practice of anaesthesia but on the other hand they also leave some short of long lasting ill effects on psychosomatic level of human beings. Use of herbal drugs specially vedanahara and medhya drugs preoperatively minimise the dose rquirement and side-effects of modern synthetic drugs. And thus they are capable to increase the safety margine in all steps of sangyaharan, as it has already been proved by many research workers in the section of sangyaharan I.M.S., B.H.U.

The last and very important component of Sangyaharan is recovery. Most of the patients are found to be very much anxious and apprehend regarding the out come of anaesthesia i.e. full recoovery. In modern terms recovery triads are -

- **Recovery from unconsciousness**
- **Regain of skeletal muscle tone and**
- **Minimal postanaesthetic complications**

Again the criteria for shifting the patients from recovery room to their wards is also classified under the three important assessments of the patients -

- **Fully awake**
- **not awake but safe and**
- **not awake and not safe**

Though as per modern anaesthetic definition a patient is fully recovered from anaesthesia when he or she follows the verbal commands and the effect of muscle relaxants is reversed but Ayurvedic concept of sangyaharan in this regard is one step ahade. As it is very well accepted and understood any anaesthetic drug which has depressant action on mind and body both, leaves long lasting ill effects. So the complete recovery from anaesthesia is not achieved just after the reversal of anaesthetics, during immidiate post operative period. Use of medhya drugs Bramhi, Ashwagandha, shankhpushpi and vacha etc. during post operative period for few days can actually and fully rehabilitate the psychosomatic system after anasthetic exercise.

The perusal of the above discussion reveals that the Trisutriya concept of sangyaharan is one of the importnt and attractive feature of Trisutriya Ayurveda. Proper and full application of these Triads in practice of sangyaharan (Anaesthesia) is the need of the comming millanium.

CIRCULAR

LATE PT. RAM AUTAR PANDE MEMORIAL AWARD - 1999

Dear/Sir/Madam,

Association of Anaesthetists of Indian Medicine invites application for Late Pt. Ram Autar Pande memorial Award 1999. Terms & conditions are as follows -

1. Applicant must be the member of the association.
2. Age of the applicant should not be more than 40 years.
3. The award will be given for original research work in the field of Sangyaharan/pain/palliation.
4. The paper presented for the award should be original and unpublished.
5. The applicant will have to send his research paper in triplicate with full bio-data to the convener of the award committee with in 31st Oct., 1999 failing which the application will not be considered.
6. The receipient of the award will have to attend the 3rd National conference of AAIM to be held on 25th to 27th Dec. 99 at Pune, (Maharastra) in person to receive the award and will present his research work before the August gathering attending the conference. The said research paper will be the property of the AAIM & will be published in the journal of AAIM.
7. A 2nd class sleeper fair to and from for attending the conference will be provided to receive the award.

Note : *Please attach your birth certificate with biodata.*

Secretary

ASHWINAO AWARD - 1999

Applications are invited for Ashwinao Award 1999 of AAIM under the following terms and conditions

1. Applicant must be the bonafied life member of the AAIM.
2. Fresh biodata in triplicate mentioning the qualification, academic experiences, clinical experiences, research and other activities in field of Sangyaharan/pain/palliation.
3. Last date for receiving application is 31st Oct. 1999.
4. Award will be presented at the time of 3rd National conference of AAIM on 25th to 27th Dec., 1999 at Pune.
5. Name of the receipient of the award will be communicated to the concerned well in time.

Secretary

Mailing Address
Dr. K.K. Pandey
10 FF Doctors Flate
Kabir Colony
B.H.U., Varanasi - 221 005.

THE NEWS

The following clinical meetings were conducted during 1998-99

Chairperson	Date	Venue	Topic	Sponsoring Agency
Dr. S.B. Pande	21.11.98	Diamond Hotel	Rhofenid I.V. for postoperative pain	Rhone Poulence
Dr. S.B. Pande	03.04.99	Diamond Hotel	'Magnamyan' an Antibiotic in Premedication	Pfizer Ltd.
Dr. D.N. Pande	03.09.99	Shalya Seminar Room	Propovan on off anaesthetic agent	Bharat Serum Ltd.

Executive Body meetings and decisions

Date	Venue	Chairperson	Agenda and decisions
13.07.98	Association office	*Dr. D.N. Pande*	– To raise the membership – To purchase land for office – To activate pain and palliative units – To allocate journal fund – To allocate fund for telephone bills of office
22.09.98	Association office	*Dr. D.N. Pande*	To decide different names as expert member of different medical discipline within faculty members.
12.12.98	Association office	*Prof. M.N. Chaudhary*	– Confirmation of previous meetings resolutions – Confirmation of IInd N.C. account – Cofirmation of IInd N.C. report – Confirmation/approval of creation of Late Pt. R.A. Pande memorial award 1999 – Confirmation of date for IIIrd N.C. at Pune
19.04.99	Association office	*Dr. D.N. Pande*	To approve the visit of Dr. D.N. Pande to Delhi in relation to Registration of Journal.
14.05.99	Association office	*Dr. D.N. Pande*	To discuss the proposal of Dr. S.B. Pande to Celebrate Sangyaharan day.
16.07.99	Association office	*Dr. D.P. Puranik*	– Confirmation of previous minutes of the meetings. – Account of A.A.I.M., IIIrd N.C. programmes, and Organising Committee etc.

Other Association Activities

- Made efforts for creation of Posts of lecturer in Sangyaharan in every Ayurvedic College.
- Made efforts to start P.G. in different P.G. Institutions all over India.
- Fixed a meeting with Prof. S.R. Sharma President C.C.I.M., Dr. S.K. Sharma, Advisory Ayurveda, Dr. Devendra Triguna, Padam Shree, and Dr. S.K. Mishra, President, Education Committee on 22.07.1999
- Fixed IIIrd National Conference at Pune on 25-26-27 Dec. 1999

3rd National Conference of A.A.I.M. (Bharatiya Sangyaharak Association) at Pune on 25, 26 and 27th December, 1999

N.I.M.A. Auditorium, Tilak Ayurveda Mahavidyalaya, 583/2, Rasta Peth, Pune

ORGANISING COMMITTEE

Patron	-	Prof. Dr. P.H. Kulkarni (President Rashtriya Shikshan Mandal, Pune)
Chairman	-	Prof. Dr. D.P. Puranik (020/333757)
Dy. Chairman	-	Prof. Dr. S.V. Marathe (020/338309)
Organising Secretary	-	Dr. V.N. Shendye (020/4450314)
Jt. Organising Secretaries	-	1. Dr. S.B. Patwardhan (0233/310200); 2. Dr. Vinod Seth
Treasurer	-	Dr. R.N. Gangal (020/620296)

INVITATION

Dear Colleague,

Members of Organizing Committee have a great pleasure to invite you for the 3rd National Conference of Association of Anaesthetists of Indian Medicine (Bharatiya Sangyaharak Association) at Historical and Educational Pune City (Maharashtra) on 25th, 26th and 27th Dec. 1999.

This is the 3rd conference of the Association in successive years and going to prove most successful of the 20th century.

Pune conference offers you an opportunity to attend Glorious and Glamourous Inaugural Ceremony, to listen to great personalities in Anaesthesia field, to attend knowledge provoking scientific sessions, panel discussions, live demonstrations and much more.

This conference also gives an opportunity to present your Research work/Experiences in Paper presentation sessions. You may present your paper on any relevant topic of your choice. Best paper will win the prize Award.

During the three days of the conference, you can share your experiences with others, you can make new friends and meet old friends, enjoy the hilarious entertainments along with mouth tempting Maharashtrian recepies. All that, we assure you pleasant stay and warm hospitality.

An Attractive special issue of "Sangyaharan Shodh" will be released at conference. You may send your articles for this special issue. You are also requested to collect advertisements for the souvenir.

We expect your full involvement with friends and spouse to make our conference a great success.

Your's truly,

Dr. D.P. Puranik
Chairman Organising Committee

Dr. V.N. Shedye
Secretary

PAPER PRESENTATION

Full text of paper should be on A4 size paper, electronically typewritten in double space. Last date to receive abstract/Full text of paper with Registration fees & Bio-Data - 30.11.1999.

LANGUAGE OF PAPERS ENGLISH/HINDI

POSTER SESSION

Text of Poster should be on A4 size paper, about 5 pages and contents should be (a) Title and name of author, (b) Materials & methods (c) Observations (d) Results & conclusions.

OFFICE OF CONFERENCE

Department of Shalya-Shalakya, Tilak Ayurved Mahavidyalaya, 583/2, Rasta Peth, Pune, Tel. : 624755, Fax : 624755, E-mail : tilak.ayurved@gems-vsn/ney.in or tamy@pn.2.vsnl.net.in.

DELEGATE REGISTRATION FEES

Registration up to 30th Nov. 99

Reception Committee Membership	Rs. 1,000/-
Delegate	Rs. 400/-
Delegate (students)	Rs. 300/-

AFTER THIS DATE

Reception Committee Membership	Rs. 1,100/-
Delegate fees	Rs. 450/-

Payment will be by cash or Bank D.D. be drawn in favour of "A.A.I.M. PUNE - CONFERENCE 99" and should be payable at Pune.

SPONSORSHIP FOR EVENTS/AWARDS/MEDALS

Lunch/Dinner	Rs. 20,000/-
Breakfast	Rs. 7,500/-
High Tea/Coffee	Rs. 4,500/-
Medals, Trophics, Awards	Rs. 10,000/-

ADVERTISEMENTS - TARIFF

Conference Special Journal issue cum Souvenir

Cover Page - (2/3/4)	Rs. 10,000/-
Inside - Colour (Full)	Rs. 5,000/-
B. & W. (Full)	Rs. 2,000/-
B. & W. (Half)	Rs. 1,100/-
B. & W. (Qtr. Page)	Rs. 600/-

For colour advertisement art work for the caption will be charged extra if not submitted with order.

TARIFF FOR STALL & BANNERS AT VENUE (For 2 days)

Stall (6'x6')	Rs. 5,000/-
Banners	Rs. 2,000/- to 5,000/-

ACCOMMODATION

- Accommodation arrangements will be at 'Private Lodges', in vicinity of conference venue. Reservations of the Lodges will be done against receipt in advance of half of total amount of desired stay at desired lodge. Dormitary type of arrangement will be made only for the needy students' group from outstation.

REGISTRATION FORM

To

The Organising Secretary,
A.A.I.M. Pune Conference - 99
Co. T.A.M.V. - 5832, Rasta Peth, Pune - 411011.

Dear Sir,

Please register my name for conference.

Name for (Tick)

1. Dr./Shri/Smt.
   .....

RC. .....

Delegate .....

Full address :

.....

.....

.....

.....

Phone No. .....

Accompanying members :

1.
2.
3.

I require Hotel Accomodation : No. of Persons .....

Reserve in Grade A ..... B ..... C .....

No. of Days .....

Sending Rs. ..... for Delegate fees and Rs. .....
for Hotel Accomodation by Cash/M.O./D.D. - drawn on .....
(Name of Bank & D.D. No.)

Thanking You,

Sincerely Yours,

Name & Signature

ASSOCIATION PROGRAMME AT PUNE

24.12.99

- Subject Committee Meeting
  5.00 PM
  NIMA Auditorium, Tilak Ayurveda Mahavidyalaya, 583/2 Rasta Peth, Pune.

26.12.99

- General Body Meeting and Election of Office Bearers for 2000-2003
  5.00 PM
  NIMA Auditorium, Tilak Ayurveda Mahavidyalaya, 583/2 Rasta Peth, Pune.

Posts to be elected

President - 1; Vice President - 2, Secretary - 1, Joint Secretary - 3 and Treasurer - 1

Last date for Nomination

10/12/1999 at Varanasi (by Registered Post only).

Withdrawl of Nomination

12th December 1999 at Varanasi (by Post).

Electrol Officer

Dr. R.N. Gangal, Pune

(All the sealed envelop - Nomination or withdrawl will be opened at Pune by Electrol Officer)

CONFERENCES AND SEMINARS - 1999-2000

Year - 1999

1. **16-18 December** **Banaras Hindu University, Varanasi (India)**
   - National Symposium on Role of Chemistry in Ayurveda
   - *Organising Secretary :* Dr. V.P. Singh, Department of Medicinal Chemistry, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, Varanasi - 221005.
2. **25-27 December, Pune**
   - IIIrd National Conference of AAIM
   - *Organising Secretary :* Dr. V.N. Shendye, Department of Shalya-Shalakya, Tilak Ayurveda Mahavidyalaya, 58312 Rastra Peth, Pune - 0212-411011., Tel : 624755, Fax : 0212-624755.
3. **9-13 October** **Dallas (Texas)**
   - ASA Annual Meeting
   - *Contact :* ASA Secretariat, American Society of Anaesthesiologists, 520 N Northwest Highway Park Ridge, IL 60068-2573, U.S.A., Tel. : +18478245586, Fax : +184782515 92, Email : g.Johnson@aschq.org
4. **29th October - 2nd November** **New Delhi (India)**
   - 5th biennial Congress of AORSA
   - *Contact :* AORSA Secretariat, R.No. 5020, Department of Anaesthesiology, All India Institute of Medical Sciences, Ansari Nagar, New Delhi - 110 029, India., Tel : 91 11 6859224 & 6593212, Fax : 91 11 6862663, Email : Kaul@medinst.ernet.in.

5. **11 - 15 December** **New-York Hilton, New York**
   - 53rd P.G. Assembly in Anaesthesiology (PGA-53)
   - ***Contact :*** Kurt G Becker, Executive Director, New York State Society of Anaesthesiologists, Inc, 360 Lexington Avenue, Suite-1800, New York, NY 10017, USA, Tel : +1 212 8677140, Fax : +1 212 8677153, Email : Kurt@hyssa-pga.org.

Year 2000

1. **10-14 March** **Honolulu (Hawaii)**
   - 74th Clinical & Scientific Congress of the International Anaesthesia Res. Soc.
   - ***Contact :*** IARS. Secretariat, 2 Summit Park Drive Suite 140, Cleveland, OH-44131-2553, U.S.A., Tel : 1216 641 1124, Fax : 1216 641 1127
2. **4-9 June** **Montreal (Canada)**
   - 12th World Congress of Anaesthesiologists
   - ***Contact :*** Events International Meeting Planners Inc, 759 Victoria SQUARE Suite 700 Montreal, Quebec H 2Y 2J7 Canada, Tel : +1514286 0855, Fax : +1514286 6066
3. **9-13 December** **New York Hilton (New York)**
   - 54th Postgraduate Assembly in Anaesthesiology
   - ***Contact :*** Kurt G Becker, Executive Director, New York State Society of Anaesthesiologists, Inc, 360 Lexington Avenue, Suite-1800, New York, NY10017, USA, Tel : +1216 8677140, Fax : 1212 8677153, Email : Kurt @hyssa.pga.org.
4. **5-7 February** **Rajgir Nalanda (India)**
   - Organised by Indian Medical Trust and Bihar Council on Science and Technology, Government of Bihar.
   - ***Contact :*** Dr. M.M. Gupta - Director Bhartiya Chikitsa Aevam Shodh Sansthan, Opp. Moinul Haque Stadium Rajendra Nagar, Patna - 800 016 (India), Tel : 91-0612-674157, Fax : 91-0612-666634/226497, Email : Client.Pat@email-com.

Guidelines for Contributors

Summary of Requirements

Type the manuscript double spaced, in the following sequence

Title page, abstract is keywords, text, acknowledgements, references, table (each table, complete with title and footnotes on a separate page) and legends for illustrations.

Illustrations must be good quality, unmainted glossy prints or Laser prints.

Submit 3 copies of manuscript and illustrations in a heavy paper envelope. The submitted mansucript should be accompanied by a covering letter signed by all co-authors and by permissions to reproduce previously published material or to use illustrations that may identify human subjects.

Preparation of a Manuscript

Type the manuscript on white bond paper ISO A4 size paper. Type only on one side of the paper using double spacing throughout.

Title Page

The title page should carry the following

(a) the title of the article, whould be concise but informative,
(b) the preferred given name, initials and last name of each author.
(c) the name of departments and illustrations to which work should be attributed.
(d) the name and address of author responsible for correspondence and reprints.
(e) a short running head or foot line (No longer than 40 charactrs, counting letters and spaces)

Abstract and keywords

The second page should carry an abstract (of no more than 200 words). The abstract should state the purposes of study or investigation, basic procedures (selection of study subjects or laboratory animals), main findings observations and analytical methods. (Specific data and their statistical significance if possible) and principal conclusions. Below the abstract provide and identify as such 3 to 10 keywords or short phrases that will assist indexers in crossindixing, use terms from medical subject headings (mash) list of Index Medicus.

Text

The text of observational and experimental articles is usually but not necessarily divided into sections with the headings - Introduction, Methods, Observations and Results and Other type of articles, such as case reports, reviews and editorials, are likely to need other formats.

References

Number references consecutively is the order in which they are first mentioned in the text. Identify references in text, tables and legends for illustrations by Arabic numerals in parenthesis.

Submission of Manuscripts

All manuscripts should be addressed to 'The Chief Editor - Sangyaharan Shodh', Section of Sangyaharan, Operation Theatre (I.M.) S.S. Hospital, Institute of Medical Sciences, Banaras Hindu University, Varanasi - 221 005.

BHARATIYA SANGYAHARAK ASSOCIATION

(ASSOCIATION OF ANAESTHETISTS OF INDIAN MEDICINE)

MEMBERSHIP FORM

I wish to join **BHARATIYA SANGYAHARAK ASSOCIATION** as Life/Annual/ Associate(Life/Annual)/Honrary member and enclose Cheque/Bank Draft/Money Order/Cash for Rs. ..... towards subscription for the association, for the year.....

Full Name (in Block Letter) : .....

Date of Birth and Sex : .....

Qualifications : .....

Designation/Profession : .....

Permanent Residential Address with Tel. No. : .....

.....

.....

Present Address to which correspondence to be sent : .....

.....

.....

Speciality : Sangyaharan/Pain/Palliation

		Life Member	Annual Member
Membership Fee	:	Rs. 1000/-	Rs. 100/-
Associate Membership	:	Rs. 500/-	Rs. 100/-

I agree to abide by the rules and regulation of the Bharatiya Sangyaharak Association.

Date :

Signature of Applicant

Correspondence Address

Bharatiya Sangyaharak Association
Operation Theatre Block Indian Medicine
S.S. Hospital, I.M.S., B.H.U., Varanasi.

Out station cheques should be accompanied by Rs. 30/- as Bank charges. Cheque/ Draft/Money Order should be send in favour of Association of Anaesthetists of Indian Medicine, Varanasi - 221 005.

SANGYAHARAN SHODH

An Official Journal of Bharatiya Sangyaharak Association (A.A.I.M.)

Form IV (See rule 8)

Declaration under Rules of the Press and Registration Act (1956)

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Name and Address of Owner	:	Bharatiya Sangyaharak Association (A.A.I.M.) Operation Theatre Block (Indian Medicine) S.S. Hospital, Banaras Hindu University Varanasi - 221 005.

I, Devendra Nath Pande, hereby declare that the particulars given above are true to the best of my knowledge and belief.

Sd/-
Devendra Nath Pande
Signature of Publisher

On behalf of Bharatiya Sangyaharak Association (Association of Anaesthetists of Indian Medicine), Printed and Published by Dr. Devendra Nath Pande. Printed by Knandelwal Offset, Mahmoorganj, Varanasi and Published at Bharatiya Sangyaharak Association, O.T. Block, (I.M.), S.S. Hospital, B.H.U., Varanasi - 221005. Editor : Dr. Devendra Nath Pande. Computerised typesetting by M/s SPECTRUM, Kabir Nagar, Durga Kund, Varanasi.