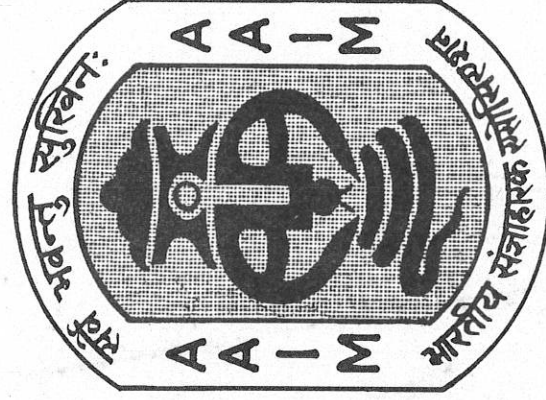


# SANGYAHARAN SHODH

February 2002

Volume 5, Number 1



## संज्ञाहरण शोध

*An Official Journal of*  
**BHARATIYA SANGYAHARAK ASSOCIATION**  
(Association of Anaesthetists of Indian Medicine)

Please encourage others to be new members

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*Hon. Secretary*  
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# SANGYAHARAN SHODH

**February 2002**

**Volume 5, Number 1**

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## Editorial

### Health Education in India: for Indians

In present scenario different schools of different medical sciences are providing different type of medical education. e.g., Allopathy, Ayurveda, Unani, Yoga and Sidha, Naturopathy and Homeopathy. Every medical science contribute some special aspects in some special areas of treatment but none can fulfill total demand of the present time when many new medical problems are emerging and presenting challenges to the medical practitioners. It is only possible to face these challenges with combined approach. As we know that each and every medical system covers special areas of treatment for ailments as **Allopathy** - advance surgical skill, **Ayurveda** - hygiene and internal medicine, skin diseases, Sushruta concepts of surgical management, **Unani** - sexual disorders, **Yoga and Sidha** - preventive and panch karma procedures, **Naturopathy** - physiological disorders and **Homeopathy** - skin diseases. When we will manage to provide knowledge of these different system of medicine at one place in one room, we will be able to produce perfect medical practitioner with a very less expenditure than today. This type of education will solve many problems also as:

- There will be no tight compartment.
- There will be no hesitation to use any one system by any one.
- There will be one rule and uniform education at every where in India.
- The public will get suitable treatment of their problems at one place by one person.
- The enmity amongst the practitioners will be reduced.
- The cost of education will be reduced.
- The cost of treatment will also be reduced.
- The best of every medical system can be used and the fittest will only survive. The bogus and outdated materials can be deleted.

#### PROBABLE PATTERN

##### U. G. Level

Hindi Version	:	Bachelor of Bharatiya Chikitsa	
English Version	:	Bachelor of Indian System of Medicine	
<b>Duration</b>	:	5½ years	1st Professional : 1 years
			IIInd Professional : 1½ years
			IIIrd Professional : 1½ years
			Final Professional : 1½ years
Internship	:	6 months	

House Job : 6 months  
 Eligibility : 10 + 2 with Physics, Chemistry, Biology and Sanskrit.

**Subjects**

Ist Professional : Charak Samhita  
 Sushrut Samhita  
 Madhaw Nidan  
 Homeopathic Principles and Materia Medica  
 Unani, Sidha- Yoga Naturopathy Principles

IInd Professional : Anatomy  
 Physiology with Biochemistry  
 Pathology  
 Pharmacology -  
 Allopathy  
 Ayurveda  
 Hoemopathy

IIIrd Professional : Ayurvedic view on Anatomy, Physiology and Pathology  
 Forensic Medicine with Toxicology and Agad Tantra  
 P.S.M. - Ayurvedic Swasthrit  
 Medicine

Final Professional : Eye, E.N.T. with Sushruta Concepts  
 Surgery with Sushruta approach

Internship : Rotation in every clinic

House Job : In speciality clinic

**P.G. Level**

**Duration** : 3 years

**Speciality** :

1. Ayurveda
2. Unani
3. Sidha
4. Yoga
5. Naturopathy
6. Homeopathy
7. Medicine
  - a. Skin
  - b. Cardiology
  - c. Neurology
  - d. General Medicine
  - e. Chest and T.B.
8. Eye - Ophthalmology



9. E.N.T.
10. Surgery
  - a. General Surgery
  - b. Plastic Surgery
  - c. Orthopaedic Surgery
  - d. Neurosurgery
  - e. Cardiothoracic Surgery
  - f. Urology
  - g. Anorectal Surgery
  - h. Obstetrics and Gynaecology
11. Anaesthesiology – Sangyahan
12. Radiology
13. Radiotherapy
14. Oncology
15. Other specialities – as applicable

All the P.G. speciality should co-opt the ancient wisdom and knowledge for clinical and research purposes. P.G. speciality will include the course materials from ancient textbooks e.g. Charka and Sushruta Samhita.

In this way India can produce a most dynamic, able and efficient team of specialists of different kind, quiet different in approach in comparison to the other countries. Humanity will be benefited a lot than ever.

This article was selected for 89th Indian Science Congress at Lucknow during 3-7th January 2002 in Medical and Veterinary section.

Jai Hind Jai Sangyahan

**Devendra Nath Pande**  
Chief Editor

### **APPEAL**

All the Members of our beloved Association are requested to donate generously for purchasing of land and construction of AAIM Office. They are requested to invite Pharmaceutical firms and other respected members of the Society to donate for this noble cause. The person who will donate Rs. 1001.00 and above, their name will be written on a marble stone at the building.

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## INVITATION/ANNOUNCEMENT

**6th National Conference and First International Congress of  
Association of Anaesthetists of Indian Medicine**

**AAIMCON-2003**

**AYURVEDA IN NEW MILLENIUM**



**6th-8th February 2003**

*Venue*

Institute of Medical Sciences, Banaras Hindu University  
Varanasi - 221005, India

### Theme

- New Trends in Pain Management
- Non-invasive Pain Management (Accupuncture, Magnet Therapy, Panch Karma)
- Aroma Therapy
- Stress and Society
- Palliative Care
- Resuscitation
- Ras Aushadhi and Kashtra Aushadhi (Herbo-mineral preparations) in Sangyahan

### Registration Fee (Including Workshop)

Category	Upto 31/8/02	Upto 31/12/02	Upto 5/2/03	Spot
Delegate	600/-	650/-	700/-	800/-
Student	300/-	300/-	350/-	500/-
Life members	500/-	550/-	600/-	700/-
Accompanying persons	250/-	250/-	250/-	300/-
Member reception committee	1000/-	1000/-	1000/-	1000/-

**Mode of Payment:** Cash/DD in favour of 'AAIMCON-2003' payable at Varanasi.

**Last Date for Submission of Abstract:** 31/12/2002

### CONTACT

**Dr. D.N. Pande**  
Organising Chairman  
Tel. 0542-316092

**Dr. K.K. Pandey**  
Organising Secretary  
Tel. 0542-367416

Section of Sangyahan, Department of Shalya-Shalaky  
I.M.S., B.H.U., Varanasi - 221005, India

Tel. : (O) 0542-307579; Telefax : 91-542- 367578; E-mail : aaimcon-2003@sify.com



**BHARATIYA SANGYAHARAK ASSOCIATION  
(ASSOCIATION OF ANAESTHETISTS OF INDIAN MEDICINE)**

**MEMBERSHIP FORM**

I wish to join **BHARATIYA SANGYAHARAK ASSOCIATION** as Life/Annual/Associate(Life/Annual)/Honorary 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 : Sangyahan/Pain/Palliation  
 Membership Fee : Life Member Annual Member  
 (w.e.f. 01.04.2002)  
 Membership Fee : Rs. 1500/- Rs. 200/-  
 Associated Membership : Rs. 1000/- Rs. 200/-

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.

## **Workshop on Cardio Cerebro Pulmonary Resuscitation and Postanaesthetic Care**

**Organised by**

Section of Sangyahan, Department of Shalya Shalaky  
Institute of Medical Sciences, Banaras Hindu University, Varanasi

### **Introduction**

Workshop on Cardio Cerebro Pulmonary Resuscitation and Postanaesthetic Care was introduced by Section of Sangyahan, Department of Shalya Shalaky with a mission that a working group of trained doctors would be produced to serve the victim of Accidents, Natural Calamity and other emergency conditions. These trained personnels of different institutions and different places will provide training to the other citizens of their respective area for success of our mission.

The first workshop was started on 1st March 2000 and was finished on 15th March 2000. Till then every year three workshops are being conducted in which minimum five delegates are selected from all over the country.

The second part of the workshop - 'Postanaesthetic Care' was included to introduce the Ayurvedic Surgeons, with anaesthesia and to provide them an introductory knowledge of complications of anaesthesia during postoperative periods so that they would be able to take care of these complications and would be able to manage these complications also.

**A workshop committee was framed for smooth functioning as below:**

**Dr. D.N. Pandey      Incharge, Section of Sangyahan Chairman**  
**Dr. K.K. Pandey      Lecturer, Streeroga Sangyahan Secretary**  
**Dr. H.O. Singh      Junior Resident      Treasurer**

In the beginning no financial assistance was provided by any Government Organisation and only by means of Registration Fee the programme was conducted. We started with nothing but after three batches we were able to purchase a Neonatal Resuscitation Model. In the year 2001, Prof. V.P. Singh, Director, Institute of Medical Sciences, Banaras Hindu University, Varanasi sanctioned Rupees One Lakh from special fund for purchase of 'Adult Airway Trainer' and thus we were able to get another tool for training purposes. We are highly thankful to Prof. V.P. Singh.

Thus, the Workshop is going on successfully and till date following participants are benefited.

## WORKSHOP COMMITTEE

### CHAIRMAN

**Dr. D.N. Pande**

Incharge, Section of Sangyahan  
Department of Shalya Shalakya  
Institute of Medical Sciences  
Banaras Hindu University  
Varanasi – 221005



### SECRETARY

**Dr. K.K. Pandey**

Lecturer, Stree Rog – Sangyahan  
Department of Prasuti Tantra  
Institute of Medical Sciences  
Banaras Hindu University  
Varanasi – 221005



### TREASURER

**Dr. H.O. Singh**

Consultant Anaesthetist  
Varanasi

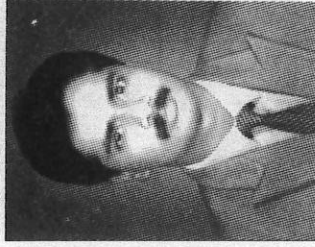




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Lamahi Via Sarnath  
Varanasi (U.P.)



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State Ayurvedic  
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**Dr. Ashish Kr. Singh**  
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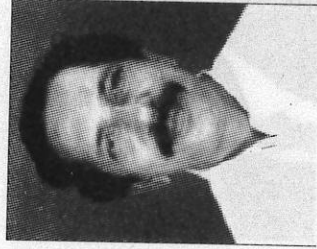


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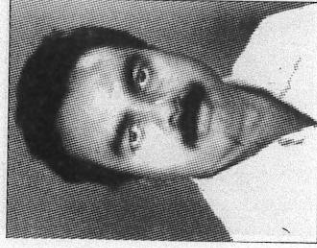


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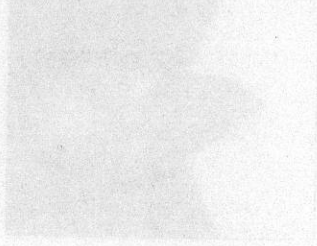
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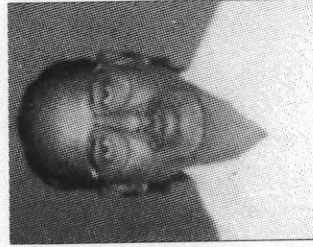
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**Vth Batch : 23rd February 2001 to 9th March 2001**



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**Dr. Pradeep Kumar Agrawal**  
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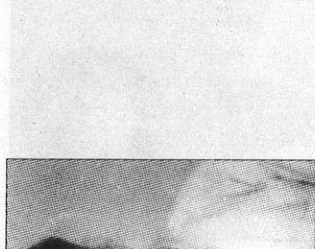
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**Dr. Satendra Singh**  
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Distt.- Bulandshahar  
Pin - 245408



### VIIth Batch : 22nd November 2001 to 6th December 2001



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Bilsi (Badaun) –243633  
(U.P.)



## **Association of Anaesthetists of Indian Medicine**

### **Annual Report – 2000-2001**

In the year 2000-2001, Association had made tremendous effort to uplift it's activities. Two state branches were actively participated in different activities of the association.

Executive meetings were held on 20/01/2001, 06/04/2001, 27/07/2001, 01/01/2002 and several steps were taken to execute the General Body Resolution passed on 25/11/2000. Sangyahan Day on 6th February 2001 was celebrated at Varanasi and Pune. At Varanasi One Day Neonatal Resuscitation Workshop was also organized on 06/02/2001. Three Workshops on Cardio Cerebro Pulmonary Resuscitation of 15 days each were also organized by the Association under umbrella of Section of Sangyahan, Department of Shalya-Shalakya, Institute of Medical Sciences, Banaras Hindu University, Varanasi.

### **GENERAL BODY RESOLUTIONS DATED 25/11/2000 – EXECUTED**

1. Account of Association of Anaesthetists of Indian Medicine – 2000-2001 was audited.
2. Account of Sangyahan Sodh - 2000-2001 was audited.
3. Account of U.P. State Branch - 2000-2001 was audited.
4. Account of Maharashtra State Branch - 2000-2001 was audited.
5. Account of IVth National Conference of Association of Anaesthetists of Indian Medicine, held at S.D.M. College, Udupi was audited.
6. For starting M.D./M.S. Courses in Sangyahan, steps were taken and letters were dispatched to the authorities concern.
7. Ashwinau Award and Late Pt. Ram Autar Pande Memorial Award were declared by the concern award committees.
8. Two oration were planned or Vth National Conference i.e., Late Prof. P.J. Deshpande Memorial Oration and Late G.B. Ghanekar Memorial Oration. The name of Dr. K.K. Pandey for Ashwinau Award – 2002 and Dr. Sanjeev Sharma for Late Pt. Ram Autar Pande Memorial Award was selected by award committees.
9. State interest shares of Life Membership Fee were distributed to Maharashtra and U.P. State Branches as per rules of the association. Journal share was also send to the Journal account:  
U.P. State Share : Rs. 1195.88  
Maharashtra State Share : Rs. 662.00  
Sangyahan Shodh Share : Rs. 2357.00

10. A separate Saving Bank Account was opened in Bank of Baroda in favour of Association of Anaesthetists of Indian Medicine and Sangyahan Shodh to get maximum benefit of interest on deposited money.

11. Sangyahan Shodh was published regularly.

12. Life Members

Life membership raised to:

Bonafide Members	-	51
Associate Members	-	93
Hon. Members	-	2

Membership List is published regularly in the Journal – Sangyahan Shodh.

#### **NOT ACHIEVED**

- No any new M.D./M.S. Course in Sangyahan could be started at any other place in the country.
- Permanent Land was not purchased.

#### **FUTURE PLANS**

- To create more new branches in different states.
- To start new short term training programmes in resuscitation and anaesthesia.
- To make effort to start new P.G. Centres for Sangyahan specialities.
- To start 'Meditation Workshop' to mitigate stress and other painful conditions.
- To start Palliation Training Programme.
- To purchase land for office.

#### **OBITUARY**



Dr. Ganga Sagar Shah, the Executive Member of A.A.I.M., resident of Begusarai (Bihar) died on 18.10.2000 in a road accident. He was post graduated from I.M.S., B.H.U., Varanasi in the year 1998. He started practicing anaesthesia in the Begusarai district of Bihar and within no time he made a highest reputation as a renowned anaesthetist. He was very hard energetic worker and was loved by all the surgeons of that area. He was a very devoted and dedicated worker of our association. The association is deprived of his immemorial contribution of a very short duration. We lost a dynamic worker of a very young age. A.A.I.M. is deeply grieved on his sad demise.

May his soul rest into eternal peace.

## Sangyahan Shodh

### Annual Report – 2000-2001

1. In the year 2000-2001, Two issues of Journal in the month of February 2001 and August 2001 were published within due time.
2. In the issue February 2001 – following advertisements were received.
 

a. B. Braun Medical India Ltd.	-	Half yearly
b. Elan Bioethical Pvt. Ltd.	-	Half yearly
c. Ayurveda Rasashala	-	Half yearly
d. Goyal Gramodyog Sansthan, Varanasi	-	Permanent
e. Shiv Ayurvecdic Pharmacy, Kasganj	-	Permanent
3. In the issue August 2001 – following advertisements were received:
 

Permanent	a. Shiv Ayurvedic Pharmacy – Kasganj
	b. Goyal Gramodyog Sansthan, Varanasi
Half yearly	a. B. Braun Medical India Ltd.
	b. Elan Bioethical Pvt. Ltd.
	c. Ayurveda Rasashala
	d. Sharma Surgicals.
	e. Dindayal Aushadhi Pvt. Ltd.
	f. Delhi Surgical and Dressings
	g. Vimal Pathology
	h. A.V. Enterprises
	i. Gracewell
4. Journal covered the Association activities – Annual Conferences, Sangyahan Day Celebrations, Awardees Biodata, News and Scientific papers with a bright get-up.
5. **Problems:** During the current year Journal had to face financial crisis and it was needed to take loan from Association account to clear the printing charge of February 2001 issue. It was recovered after getting some more advertisements in the next issue i.e., August 2001. Then loan was repaid to the Association account.  
 Keeping in view the expenditure on Journal Publication it was decided to raise the Journal Subscription for libraries and Institution and other than Life-members as below:
 

Half yearly	-	100/-
Yearly	-	190/-
Life	-	2000/-
6. **Journal Account:** Account of year 2000-2001 was submitted to the Central Council Executive Committee to approve and to forward to the General Body Meeting on 19th January at Sawantwadi.

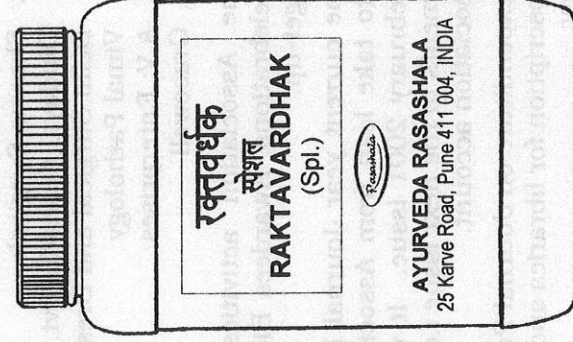
D.N. Pande  
Chief Editor



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Medicines  
with Chyavanprash  
as a base.

### ADDED

#### INGREDIENTS

Triphala, Trikatu, Chitrak,  
Shringa Bhasma,  
Shouktika Bhasma  
Suvama Makshik Bhasma,  
Loha Bhasma,  
Shudhashilajit, Vidanga,  
Ashwagandha, Shatavani,  
Vidarikanda,  
Roupya Bhasma,  
Vangabhasma.



## AYURVEDA RASASHALA

25 Karve Road, Pune 411 004, INDIA



## **U.P. State Branch Association of Anaesthetists of Indian Medicine**

### **Annual Report - 2000-2001 (from 15/10/2000 to 31/12/2001)**

U.P. State Branch started functioning from 15/10/2000 when an adhoc body of Office Bearers were selected as below:

President	-	Dr. S. Sharma
Vice President	-	Dr. S.K. Mishra
Secretary	-	Dr. P.R. Mishra
Jt. Secretary	-	Dr. S.K. Singh
Treasurer	-	Dr. S.B. Chaurasia
Executive Members	-	Dr. Ashok Dixit Dr. P.S. Pande Dr. A. Pai Dr. H.O. Singh Dr. R.K. Jaiswal

It was intimated to the President, Central Council. The adhoc body notified an election on 2/11/2000 at 7.30 PM in Hotel Diamond. Dr. D.N. Pande, Sr. Vice President was convener of Election Committee on 2/11/2000. Dr. D.N. Pande declared the election process open. The following Office Bearers were elected unanimously for respective posts as below:

President	-	Dr. S. Sharma
Vice President	-	Dr. S.K. Mishra
Secretary	-	Dr. P.R. Mishra
Jt. Secretary	-	Dr. S.K. Singh
Treasurer	-	Dr. S.B. Chaurasia
Executive Members	-	Dr. Ashok Dixit Dr. P.S. Pande Dr. A. Pai Dr. H.O. Singh Dr. R.K. Jaiswal

Inaugural function of U.P. State Branch was held on the same day. Oath was given to all the Office Bearers by Dr. S.B. Pande, Patron of the Association, Central Council. A Clinical Meeting was also arranged at the occasion. The Clinical Meeting was sponsored by Bharat Medical Instrument Pvt. Ltd.

Existence of U.P. State Branch was approved by General Body on 25/11/2000 at S.D.M. Ayurved College, Udupi.

Since existence of U.P. State Branch following Executive Meeting were held and following execution of decision were made:

1. **Executive Meeting dated 18/11/2000.** Chairman : **Dr. D.N. Pande**
  - a. To start P.G. Course in Sangyahan at different States.
  - b. To create separate department of Sangyahan at U.G. & P.G. Level. and
  - c. Request to Central Council to release State share were discussed and minutes were send to General Body meeting dated 25/11/2000 for approval.
2. **Executive Meeting dated 06/04/01.** Chairman: **Dr. S.B. Pande**

Executive decisions taken	Executed
a. To open an account in favour of U.P. State Branch	: Account opened on 28/06/2001.
b. Sangyahan Day Celebration	: 6th February 2002 - in process
c. To select one additional Jt. Secretary for help to Secretary and Treasurer	: Dr. H.O. Singh was nominated as Jt. Secretary
d. To arrange Monthly Clinical Meeting	: Clinical Meeting was arranged regularly according to following schedule under supervision of following nominated Executive Members: <ol style="list-style-type: none"> <li>i. 31st July 2001 - Dr. Sanjeev Sharma</li> <li>ii. 31st August 2001 - Dr. S.K. Mishra</li> <li>iii. 30 September 2001 - Dr. P.R. Mishra</li> <li>iv. 31st October 2001 - Dr. S.B. Chaurasia</li> <li>v. 30th November 2001 - Dr. S.K. Singh</li> <li>vi. 31st December 2001 - Dr. H.O. Singh</li> </ol>
3. **Executive Meeting dated 31/07/01.**

Chairman: **Dr. S.B. Pandey**, Chief Guest: **Prof. K. Pandey**

Inauguration of Clinical Meetings was held on 31/07/01 at Diamond Hotel at 6.00 PM. Dr. S.B. Pande (Patron), Prof. K. Pandey (Chief Guest), Dr. S. Sharma (President) and Dr. P.R. Mishra (Secretary) were on the Dias.

All the Clinical Meetings were organized on the scheduled dates  
 Dr. P. Bhattacharya, Prof. K. Pandey, Dr. Raman Singh, Dr. D.N. Pandey, Dr. K.K. Pandey were the Guest Speaker.



Dr. P.R. Mishra welcomed all the guests and members and then read the notice of the meeting (preserved). The previous minutes were confirmed unanimously. The following agenda were discussed and passed unanimously:

- a. Annual Report and account - Presented by Dr. P.R. Mishra and Dr. S.B. Chaurasia.
- b. Sangyahan Day Celebration Committee - Framed Unanimously.
- c. Felicitation of Association Members receiving special award - **Dr. S.B. Pande** received Ashwinai Award in the year 1997 at B.H.U., Varanasi and **Dr. D.N. Pande in the year 2000** at Udupi. Both were felicitated by a Memento of the U.P. State Branch by the hands of Prof. K. Pandey. **Dr. P.R. Mishra** received best paper award in the year 1998 at Puri, Dr. M. Sinha and **Dr. A. Pai** at Pune in the year 1999. They were also felicitated by U.P. State Branch with a Memento by hands of Prof. K. Pandey, Emeritus Professor, Department of Anaesthesiology, Institute of Medical Sciences, Banaras Hindu University, Varanasi.
- d. Clinical Meeting

**Dr. P. Bhattacharya** delivered a Guest Lecture on 'Cardiac Diseases and Management of Anaesthesia'.

A Memento of U.P. State Branch was presented to Dr. P. Bhattacharya by hands of Dr. D.N. Pande. The Chairman of Clinical Meeting Prof. K. Pandey was also being presented a Memento by Dr. S.B. Pande, Patron of the Association.

#### 4. **Executive Meeting dated 31/08/01.**

- a. Preserved notice was read by Dr. P.R. Mishra and the previous minutes were approved.
- b. Clinical Meeting

A talk on '**Mandelson's Syndrome**' was presented by **Dr. D.N. Pande**, Sr. Lecturer, Sangyahan, Institute of Medical Sciences, Banaras Hindu University, Varanasi.

#### 5. **Executive Meeting dated 30/09/01.**

- a. Preserved notice was read by Dr. P. R. Mishra and previous minutes of the meeting were read and confirmed.
- b. Clinical Meeting

Two Guest Lectures were arranged by Dr. P.R. Mishra. First Guest Lecture was delivered by **Dr. Raman Singh** on '**Lap. choly-**

**cystectomy** and the Second lecture on 'Neurotrauma and Management' by Prof. K. Pandey.

**6. Executive Meeting dated 31/10/01.**

a. Preserved notice was read by Dr. P.R. Mishra and the minutes of previous meeting were confirmed.

b. Sangyabharan Day Celebration

As it was decided to celebrate Sangyabharan Day at Govt. Ayurvedic College, Varanasi all the members were requested to be Registered. Dr. P.R. Mishra informed the house regarding further progress.

c. State Branch Activities

The members were very much concerned over the continuous absence of some respected Executive Members. The Secretary was requested to send a letter to such Members.

d. Clinical Meeting

**A Panel Discussion** was arranged under Chairmanship of **Dr. S.B. Pande**. Every Member presented their personal experiences facing in the field and shared their views regarding solving some issues like - premedication, surgeons pressure for doing work without adequate facility in spinal anaesthesia etc.

**7. Executive Meeting dated 30/11/01.**

a. Preserved notice was read by Dr. H.O. Singh in the absence of Secretary P.R. Mishra. The leave application of Dr. P.R. Mishra was accepted. The minutes of the previous meeting were read by Dr. H.O. Singh.

b. Clinical Meeting was postponed for the next day due to illness of Guest Speaker - Prof. K. Pandey. In place of Prof. K. Pandey, Dr. D.N. Pande, Incharge, Section of Sangyabharan, Institute of Medical Sciences, Banaras Hindu University accepted to deliver Guest Lecture on 'Neurotrauma' on 04/12/01.

c. Sangyabharan Day Celebration

Dr. Sanjeev Sharma informed the house regarding acceptance of Dr. B.P. Pandey, Principal, Govt. Ayurvedic College, Varanasi to be the Chairman of the Organising Committee and the Vice Chancellor, Sanskrit University to inaugurate the function. A tentative programme was prepared.

8. **Executive Meeting dated 31/12/01.** Chairman: **Dr. S. Sharma**

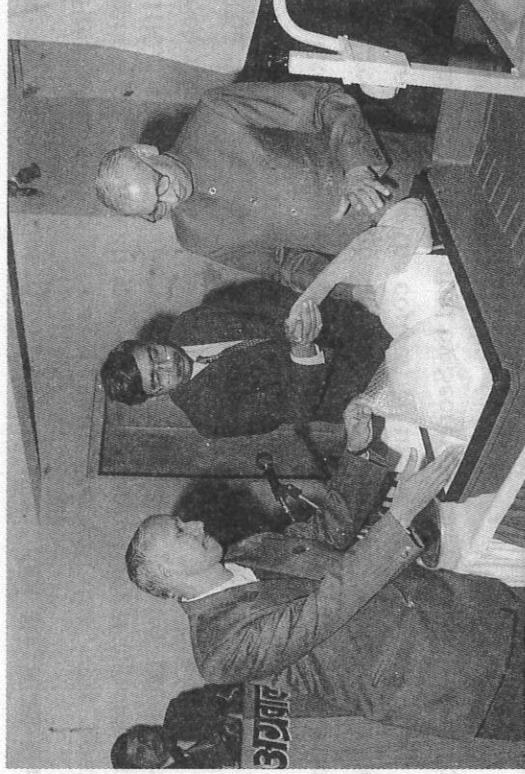
- a. Preserved notice was read and the minutes were confirmed with following modifications - Sangyahan Day Registration Fee - Rs. 100/- upto 31st January and Rs. 200/- from 1st February to 5th February 2002.
  - b. The circular of Sangyahan Day Celebration with a tentative programme be dispatched within two days.
  - c. An Executive Body Meeting be called for reschedule the Clinical Meetings.
  - d. The request for enhancement of attendance in Clinical Meetings - be sent in writing to the concerned members.
  - e. Annual report presented by Secretary Dr. P.R. Mishra (upto 31/12/01) was accepted unanimously.
  - f. Annual account (upto 31/12/01) was presented by Jt. Secretary Dr. H.O. Singh and was accepted unanimously
  - g. Clinical Meeting started at 4.00 PM. **Dr. K.K. Pandey**, Lecturer, Stree-Roga Sangyahan delivered lecture on '**Shock Management**'. The talk was very much appreciated by the audience and a vote of thanks was raised by Dr. P.R. Mishra to Dr. K.K. Pandey.
- The meeting ended with a vote of thanks to the Chairman and to the other members by Dr. P.R. Mishra.

In this way the U.P. State Branch, Association of Anaesthetists of Indian Medicine worked hard during the whole year to conduct the Clinical Meeting and other activities of the Association. Nearly 25 members attended the Vth National Conference at Sawantwadi. Many Research Papers were presented by U.P. State Branch Members at Sawantwadi.

**SANGYAHARAN DAY**

On the scheduled date 06.02.2002 Sangyahan Day was celebrated at State Ayurvedic College, Sampurnanad Sanskrit University, Varanasi by U.P. State Branch Members. 247 delegates participated in this programme. Prof. R.M. Sharma Vice Chancellor, Sampurnanad Sanskrit University inaugurated this function and Prof. P.V. Tiwari, Ex-Dean, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University was the Chief Guest. A guest lecture on 'Shock and it is management' was delivered by Dr. S.K. Mathur, Sr. Lecturer, Department of Anaesthesiology, Institute of Medical Sciences, Banaras Hindu University, Varanasi. Dr. S.B. Pande was in the chair and Dr. J.S. Shukla was Co-chairman of this session. After this session a delicious lunch was served to all the guests and delegates at 1.30 p.m.





Inauguration of Workshop on C.C.P.R. by Prof. R.H. Singh, Dean Faculty of Ayurveda, I.M.S., B.H.U.

After lunch at 3.00 p.m., workshop on C.C.P.R. was conducted. Prof. R.H. Singh, Dean, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University inaugurated the workshop and Prof. K.R. Sharma was in the Chair. Dr. B.P. Pandey, Principal State Ayurved College was the Co-chairman. The Demonstration of C.C.P.R. was done on Dummy by Dr. D.N. Pande, Sr. Lecturer, Sangyahan and Dr. K.K. Pandey, Lecturer, Sangyahan, Faculty of Ayurved, Institute of Medical Sciences, Banaras Hindu University. The demonstration was very well appreciated by Prof. R.H. Singh, Dean and other participants. In the end of the workshop session Prof. K.R. Sharma presented a memento to Dr. D.N. Pande and Dr. K.K. Pandey. Prof. R.H. Singh was felicitated with a garland and memento by Prof. K.R. Sharma. Prof. R.H. Singh, Dean, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University presented a memento to Prof. K.R. Sharma, Chairman of the session and Prof. B.P. Pandey, Principal, Govt. Ayurved College.

The Sangyahan Day celebration was ended with vote of thanks to the guests, participants, Organising Committee and other staff. A cup of tea was served to all the guest and participants with good by.

P.R. Mishra  
Secretary

## **Maharashtra State Branch Association of Anaesthetists of Indian Medicine Annual Report – 2000-2001**

Maharashtra State Branch of Association organized various programmes throughout the year.

### **General Body Meeting**

1st General Body Meeting was called on 9th July 2000. Meeting was accompanied with a lecture programme.

Elections for the Executive Committee Members of State Branch were held in this meeting. Now Executive Committee Members selected the office bearers as follows:-

President	: Dr. Marathe Sham V.
Vice President	: Dr. Talwalkar Suhas S.
Gen. Secretary	: Dr. Shendye Vasudeo N.
Treasurer	: Dr. Borse Nandkishor V.
Executive Member	: Dr. Gupta R.K.
	Dr. Deshpande B.N.
	Dr. Dehadray B.B.
	Dr. Varpe Anil

New Executive committee took the charge of the branch.

Dr. Limaye A.B. is the patron of the branch.

### **Workshop**

In April 2000, one day workshop on **Cardio Pulmonary Resuscitation** was arranged at Tilak Ayurved Mahavidyalaya, Pune for the members and Post Graduate students. Delegates participated actively in this programme.

### **Lecture Programmes**

Four lecture Programmes were arranged during this year.

- On 6th February 2000, Dr. Talwalkar S.S. and Dr. Limaye A.B., Senior Anaesthetists, delivered a lecture on 'Intubation' and 'Pre anaesthesia Assessment of Patient', respectively.
- On 9th July 2000, Dr. Mrs. Shintre Deepti, Anaesthesiologist, gave a lecture on 'Epidural Analgesia'

- On 13th November 2000, Dr. Limaye A. B. gave a lecture on 'Anatomical and Physiological Aspects of Intubation'.
- On 6th February 2001, Dr. Nankar Yashwant, Anaesthesiologist, delivered a lecture on 'Pain Management' and Dr. A.M. Deshpande, gave a lecture on 'Out door Anaesthesia'. He is a senior and renowned Anaesthetist.

### **Felicitations**

Dr. Omkar Kajale and Dr. Vijay Jadhav were felicitated by Association as both of them received an award for their paper presentations.

### **Sangyahan Day**

6th February 2000 and 6th February 2001 were observed as Sangyahan Day.

Lecture programmes were arranged on this occasion.

### **Conference**

Members of Maharashtra State Branch actively participated in 4th National Conference of A.A.I.M. at Udupi- Karnataka. Two papers were presented, out of which one received a best paper award - Late Pt. Ram Autar Pande award.

### **Executive Committee Meetings**

Four Executive Committee Meetings were held during this year.

### **Future Plan**

A.A.I.M. Maharashtra State branch, invites 5th National Conference of A.A.I.M. in January 2002 at Sawantwadi, Distt. Sindhudurga.

Dr. Shendye V.N.  
General Secretary  
A.A.I.M., M.S.B.



### **OBITUARY**

The Vice President at A.A.I.M. (M.S.B.) Dr. Suhas S. Talwalkar died after illness on 15.06.01. He was very active member and a renowned anaesthetist in the State of Maharashtra.

He rendered his free services to the Charitable Institutes like Seth Tarachand Ramnath Dharmarth Ayurvedic Hospital for long time.

A.A.I.M. (M.S.B.) is deeply grieved on his sad demise.

May his soul rest into eternal peace.



## **Association of Anaesthetists of Indian Medicine Minutes of the Executive Body Meeting dated 01/01/2002**

**Venue :** Office of the Association, Sir Sudarlal Hospital, B.H.U.  
**Chairperson :** Dr. D.N. Pande, Vice President

An Executive Body Meeting of the Association of Anaesthetists of Indian Medicine was held on 01/01/2002 at 11.00 AM in the Office of the Association. The preserved notice of the meeting was read by Dr. P.K. Sharma, Secretary. The following members attended the meeting:

1. Dr. D.N. Pandey, Sr. Vice President
2. Dr. K.K. Pandey, Vice President
3. Dr. P.K. Sharma, Secretary
4. Dr. Akar Ali, Member
5. Dr. H.O. Singh, Member
6. Dr. S.K. Singh, Member
7. Dr. P.R. Mishra, Member
8. Dr. R.K. Jaiswal, Member
9. Dr. Sanjeev Sharma, Managing Editor, Sangyahan Shodh
10. Dr. R. Asthana, Treasurer

### **SUBJECTS**

1. Confirmation of the minutes.
2. Land purchase for Central Council Office at Varanasi.
3. Life Membership and Associate Membership Fee
4. Tenure of Patron
5. Sangyahan Shodh Subscription – Revision
6. Annual Report of Association of Anaesthetists of Indian Medicine Central Council, U.P. State Branch, Maharashtra State Branch.
7. Annual Accounts of Association of Anaesthetists of Indian Medicine Central Council, U.P. State Branch, Maharashtra State Branch.
8. Amendments regarding – Membership Fee and Conference Surplus Money.
9. If any other matter – by permission of Chairperson.

### **RESOLUTIONS**

Dr. D.N. Pande informed the house about the telephonic message of Dr. D.P. Puranik, President regarding inability to attend the meeting. The leave of absence was granted by the house. Under Chairmanship of Dr. D.N. Pande. Meeting was started in time.

**Subject 1**

The minutes of the previous meeting dated 27/07/2001 was confirmed unanimously.

**Subject 2**

Dr. D.N. Pande, Sr. Vice President proposed to purchase a land for Central Council Office at Varanasi. He proposed the land purchase plan as below:

**Area:** Minimum 40' x 30' for construction of a Hall with a Room with attach Bath.

Fund for purchase of land and construction of building:

- a. By mandatory donation from Life Member (Bonafide) – Rs. 500/-
- b. By donation from Life Associate Member (Willingly) – Rs. 500/-
- c. By raising Associate Membership Fee – Rs. 1000/-  
(Rs. 500/- as Membership Fee and Rs. 500/- as Development)
- d. Donation from Industrialists – Above Rs. 1001/-  
(The Donor Names will be written on the Building)

The plan was discussed in length and was accepted as it is framed by Dr. D.N. Pande, Sr. Vice President.

**Subject 3**

Proposal of Dr. D.N. Pande to revise Associate Life Membership Fee as Rs. 1000/- and Bonafide Life Membership Fee as 1500/- was accepted unanimously.

**Subject 4**

Tenure of present Patron Dr. S.B. Pande was proposed to extend 5 years more from the date of 1st tenure completion i.e., 09/03/2002.

**Subject 5**

The letter of Dr. D.N. Pande, Chief Editor, Sangyahan Shodh regarding to raise subscription of Sangyahan Shodh as Half-yearly – Rs. 100/-, Yearly – 190/- and Life (15 years) – Rs. 2000/- for other than Association Members and for Libraries Yearly – Rs. 300/- and Life (15 years) – Rs. 3000/- was unanimously accepted by the house.

**Subject 6**

Annual reports of Central Council, U.P. State Branch and Maharashtra State Branch were presented by Dr. P.K. Sharma, Secretary, Association of Anaesthetists of Indian Medicine and was accepted unanimously. Annual report of Sangyahan

shodh was presented by Dr. D.N. Pande, Chief Editor and was accepted unanimously.

**Subject 7**

Annual accounts of Central Council Sangyahan Shodh, U.P. State Branch and Maharashtra State Branch of Association of Anaesthetists of Indian Medicine were presented and accepted unanimously.

**Subject 8**

Amendments proposed regarding Membership Fee was accepted unanimously. As it was decided in previous Executive Body Meeting it was unanimously accepted to distribute the Life Membership Fee share as below:

The Membership Fee (Life) of concerned State will be divided as direct 50% to Central Council, 25% to States and 25% to journal which will be kept in Fixed Deposits and Branches will use only it's interest for day to day work.

**Conference Surplus Money:** to be divided as 40% to State Branch conducting the Conference and 60% to the Central Council. The Central Council share (60%) will be divided again in two shares as 50% to the Journal of Sangyahan Shodh and 50% to Central Council account of Association of Anaesthetists of Indian Medicine.

All the resolutions are forwarded for approval of General Body Meeting to be held at Sawantwadi.

D.N. Pande  
Chairperson

**ANNOUNCEMENT OF A.A.I.M.**

Please note that out life Membership fees are revised from 01.04.2002 as below:

Life member-Bonafide (Sangyaharak)	Rs. 1500.00
Life member - Associate (Pain and Palliative Care specialist and others)	Rs. 1000.00
Annual Membership	Rs. 200.00



## Meeting No. 40 General Body Meeting dated 19.01.2002

**Venue:** Govind Chitra Mandir, Sawantwadi

**Time:** 8 p.m.

### Minutes

General body meeting of A.A.I.M. was held on 19th January 2002 at Govind Chitra Mandir, Sawantwadi (Maharashtra) at 8 p.m. with prior notice. Meeting was made to order when President Dr. D.P. Puranik was in the chair and members signed the roll. General Secretary, Dr. P.K. Sharma extended welcome to all the office bearers and attending members. Before the regular agenda was resumed a condolence resolution was passed as follow:

### Resolution

“This General Body of A.A.I.M. in the meeting held on 19th January 2002 at Sawantwadi express deep grief for the sad demise of life member Dr. Suhas S. Talvarkar, Dehu Road, Pune and pray almighty God to keep the departed soul into eternal peace.” All the members observed two minutes silence to give tribute to late Dr. S.S. Talvarkar.

After condolence resolution regular agenda was resumed with the permission of chair.

### Subject 1

To read and confirm last General Body meeting dated 25-11-2000 and executive body meeting 6-4-2001, 27-7-2001 and 1-1-2002.

General Secretary Dr. P.K. Sharma presented the minutes of last General Body meeting and executive body meetings.

### Resolution

General Body resolved that minutes presented by secretary be passed.

**Proposed by:** Dr. Akbar Ali

**Seconded by:** Dr. R.K. Gupta

### Subject 2

To read and confirm Annual report of A.A.I.M. for the year 2000-2001.

General Secretary presented written report of A.A.I.M. for the year 2000-2001 and also Annual report of U.P State Branch and Maharashtra State Branch received by him.

### **Resolution**

This General Body adopted all the annual reports presented by General Secretary for the year 2000-2001.

**Proposed by:** Dr. N.V. Borse (Pune)

**Seconded by:** Dr. V.H. Kulkarni (Satara)

### **Subject 3**

To present and adopt audited account for the year 2000-2001 of

1-A.A.I.M. (Central Council)

2-Sangyabharan Sodh

3-A.A.I.M. (Maharashtra State Branch)

4-A.A.I.M. (U.P. State Branch)

### **Resolution**

This General Body of A.A.I.M. adopted all the audited account presented by General Secretary in the absence of treasurer.

**Proposed by:** Dr. B.N. Deshpande (Pune)

**Seconded by:** Dr. S.B. Patwardhan (Sangli)

### **Subject 4**

To read and adopt audited account of 4th National Conference held at Udupi.

### **Resolution**

This General Body of A.A.I.M. resolve to adopt the audited account of the 4th National Conference held at Udupi in November 2000.

### **Subject 5**

Consideration of invitation for the 6th National conference.

General Secretary informed the General Body that he has received an invitation from Dr. Sanjeev Sharma president, U.P. State Branch to hold Conference at Varanasi in January 2003

### **Resolution**

This General Body of A.A.I.M. dated 19-1-2002 at Sawantwadi hereby resolve to accept invitation from Dr. Sanjeev Sharma to hold 6th National Conference at Varanasi probably in January 2003.

### **Subject 6**

Consideration of nominee for the Ashwinau Award for the year 2002.

### Resolution

It was resolved to confirm the name of Dr. K.K. Pandey (Varanasi) for the Award recommended by the selection committee of Ashwinau Award.

### Sub7

Timely subject with the permission of Chair President Dr. D.P. Puranik informed the house about proposal of Chief Editor, Sangyahan Sodh, Dr. D.N. Pande to increase subscription rate due to rise in printing and postage cost.

General Body discussed in the matter in depth and finally passed the resolution as follows.

### Resolution

The General Body of A.A.I.M. hereby resolve to increase the rate of subscription as follows.

Single copy of Sangyahan Sodh	Rs. 100/-
Annual Subscription	Rs. 190/-
Life membership (for 15 years)	Rs. 2000/-

**Proposed by:** Dr. Akbar Ali

**Seconded by:** Dr. V.H. Kulkarni

The General Body Meeting was concluded with Vote of thanks raised by Dr. P.K. Sharma, General Secretary, A.A.I.M.

**(Dr. P.K. Sharma)**

Secretary

**(Dr. D.P. Puranik)**

President

### Note:

- (i) The minutes of General Body Meeting dated 19.01.2002 published in Sangyahan Shodh – February 2002 issue. In continuation to this minute the Executive Body Meeting minutes dated 01.01.2002 is also published. All the life members are requested to send their suggestion if any by post to the Secretary, A.A.I.M.
  - (ii) All the bonafide members are requested to deposit Rs. 500/- as mandatory Donation for land purchase and office construction – by D.D. in favour of 'A.A.I.M., Varanasi'.
  - (iii) Associate life members are also requested to denote willingly as Rs. 500/- for the above.
- In anticipation to cooperation of our life members.

**Dr. P.K. Sharma**  
Secretary, AAIM



## A.K. Keshary & Associates

CHARTERED ACCOUNTANTS

**Off :** Moti Bhawan, Lanka  
Varanasi, Ph : 366633

**Resi. :** B-6, Brijclavie Colony  
Sunderpur, Varanasi, Ph. 316644

### ASSOCIATION OF ANAESTHETISTS OF INDIAN MEDICINE, B.H.U., VARANASI RECEIPT & PAYMENT ACCOUNT FOR THE PERIOD ENDING ON 31.03.2001

Receipt	Amount (Rs.)	Payment	Amount (Rs)
To <u>Opening Balance</u>		By Audit Fee	750.00
To Bank Balance	15,034.80	By Stationery & Printing	1,986.50
To Cash	4,947.06	By Postage Expenses	434.00
To Membership Fees	16,160.00	By Telephone	228.90
To Ashwino Award	1,000.00	By Travelling Expenses	5,984.00
To Transfer from Conf.	50,900.00	By Momento & Pins	1,675.00
To Selling of Coller Pins	420.00	By Typing	136.00
To Interest on FDR	8,178.00	By Bank Charges	99.00
To Interest from HDFC	5,875.00	By <u>Closing Balance</u>	
		Bank Balance	88,122.40
		Cash in Hand	3,099.66
	1,02,515.46		1,02,515.46

President : Sd/-  
Secretary : Sd/-  
Treasurer : Sd/-  
of AAIM

#### AUDITORS REPORT

We have verified above Receipt & Payment  
Account with the records of the institution  
and found the same in accordance therewith.

Place : Varanasi  
Dated: 16.07.2001

For A.K. Keshary & Associates  
Chartered Accountants

Sd/-  
(Arvind Kumar Keshary)  
Proprietor

## A.K. Keshary & Associates

CHARTERED ACCOUNTANTS

Off : Moti Bhawan, Lanka  
Varanasi, Ph : 366633

Resi. : B-6, Brijenclave Colony  
Sunderpur, Varanasi, Ph. 316644

### ASSOCIATION OF ANAESTHETISTS OF INDIAN MEDICINE, B.H.U., VARANASI BALANCE SHEET AS AT 31.03.2001

Liabilities	Amount (Rs.)	Assets	Amount (Rs)
<u>Capital Fund:</u>			
Opening Balance	1,22,177.35	<u>Investment &amp; Deposit:</u>	
Membership fee	16,160.00	F.D. for AAIM	6,000.00
	1,38,337.35	F.D. for AAIM	21,000.00
Add: Excess of		F.D. for AAIM	15,000.00
Income over Exp.	4,180.20	F.D. for G.B. Operation	5,000.00
	1,42,517.55	H.D.F.C.	50,000.00
<u>Unsecured Loans:</u>		F.D. for Ashwinau Award	6000.00
Conference Account	1,10,542.51	<u>Loans &amp; Advances:</u>	
		Loans To Conference	3,000.00
		Fund T/For Op. Bank A/c	
		Journal	10,838.00
		Fund T/For F.D. in favour of	
		Sangyabharan Shodh Journal	45,000.00
		<u>Current Assets:</u>	
		Cash at Bank	88,122.40
		Cash in Hand	3,099.66
	2,53,060.06		2,53,060.06

President : Sd/-  
Secretary : Sd/-  
Treasurer : Sd/-  
of AAIM

Place : Varanasi  
Dated: 16.07.2001

For A.K. Keshary & Associates  
Chartered Accountants

Sd/-  
(Arvind Kumar Keshary)  
Proprietor

## A.K. Keshary & Associates

CHARTERED ACCOUNTANTS

**Off :** Moti Bhawan, Lanka  
Varanasi, Ph : 366633

**Resi. :** B-6, Brijenclave Colony  
Sunderpur, Varanasi, Ph. 316644

### SANGYAHARAN SHODH JOURNAL, B.H.U., VARANASI RECEIPT & PAYMENT ACCOUNT FOR THE PERIOD ENDING ON 31.03.2001

Receipt	Amount (Rs.)	Payment	Amount (Rs)
To <u>Opening Balance</u>		By Printing Expenses	17,160.00
Bank Balance	3,365.25	By Stationary Expenses	194.50
Cash	121.00	By Conveyance Expenses	140.00
To Membership Fee	1,295.00	By Postage Expenses	387.00
To Advertisement	8,600.00	By Telephone	15.00
To Interest on F.D.R.		By Bank Charges	132.00
& S.B. A/c	11,441.24	By <u>Closing Balance</u>	
To Dr. D.N. Pande	115.50	Bank Balance	6,909.49
		Cash in Hand	Nil
	24,937.99		24,937.99

President : Sd/-  
Secretary : Sd/-  
Treasurer : Sd/-  
of AAIM

#### AUDITORS REPORT

We have verified above Receipt & Payment  
Account with the records of the institution  
and found the same in accordance therewith.

Place : Varanasi  
Dated: 16.07.2001

For A.K. Keshary & Associates  
Chartered Accountants

Sd/-  
(Arvind Kumar Keshary)  
Proprietor



## A.K. Keshary & Associates

CHARTERED ACCOUNTANTS

**Off :** Moti Bhawan, Lanka  
Varanasi, Ph : 366633

**Resi. :** B-6, Brijclavie Colony  
Sunderpur, Varanasi, Ph. 316644

U.P. STATE BRANCH, A.A.I.M., B.H.U., VARANASI  
**RECEIPT AND PAYMENT ACCOUNT FOR THE PERIOD ENDED ON 31.12.2001**

Liabilities	Amount (Rs.)	Assets	Amount (Rs)
By Registration Fees	28,000.00	To Momento	5,210.00
By Donation	16,300.00	To Fax & Telephone	488.80
By U.P. State Share	1,195.88	To Photostat Charges	562.00
By Interest on S.B. A/c	23.00	To Printing Expenses	2,413.00
		To Stationary Expenses	3,150.00
		To Typing Charges	312.00
		To Photography & Video	1,523.00
		To Inauguration & Valed.	2,200.00
		To Catering Expenses	21,400.00
		To Refreshment & Meeting	205.00
		To Miscellaneous Expenses	292.00
		To Bank of Baroda	7,218.88
		To Cash in Hand	543.70
	45,518.88		45,518.88

President : Sd/-  
Secretary : Sd/-  
Treasurer : Sd/-  
of U.P. State

### AUDITOR'S REPORT

Certified to be True & Correct

Place : Varanasi  
Dated: 31.12.2001

For A.K. Keshary & Associates  
Chartered Accountants

Sd/-  
(Arvind Kumar Keshary)  
Proprietor

## **Role of Indian System of Medicines in Palliative Care**

**PANDE D.N.**

**Lecturer-delivered in the Scientific Session of 9th International Conference of Indian Association of Palliative Care on 3rd February 2002 at Swatantrata Bhawan, Banaras Hindu University, Varanasi.**

Nearly one million new cases of cancer are detected in India every year. The most of the cases are diagnosed very late. At this stage only palliative care is a source to help these helpless people. A large number of volunteers of different medical specialities are needed to help these sufferers. For this noble cause our lakhs of practitioners of Indian system of medicines eg. Ayurveda, Unani, Sidha, Yoga, Naturopathy & Homeopathy working in remote area can help by means of their specific role in specific field. They can help in early diagnosis of Cancer, they can help in educating the rural population to achieve early diagnosis of cancer. They can provide help to get best help from a nearest Cancer Hospital to these sufferers. Not only they can help in early diagnosis of the disease but they can help the terminally ill patients according to their specialities. A proper training is required to these forces in Palliative Care. This paper will include a standard training schedule for these specialists of different schools.

Ekam Shastramadhiano na  
Vidvachhastranischayam,  
Tasmad Vahuahrutah Shastran  
Vijaniyah Chikitsakah.

The surgeon/Physician who knows only one shastra Subject will be unable to diagnose or treat the diseases, the person who knows many shastras-subjects will be able to treat and diagnose the diseases.

Satatadhyanam Vadah  
Partantravalokanam  
Tada Vidyacharya Seva  
Cha Budhi Meda Karogunah.

By continuous learning of other specialities, by discussion with other specialists and by serving the teachers one can be able to enhance and improve his knowledge.

Therefore we should not hesitate to acquire knowledge from anywhere and from any one.

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Incharge, Section of Sangyahanan, Department of Shalya-Shalakya, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, Varanasi

At the same time this knowledge should be utilized for the benefit of the society without discrimination. Many useful materials are scattered in each system. We should adopt the useful and leave the rest.

Keeping in view the above facts I want to draw the kind attention of the august gathering regarding utilization of Indian System of medicine in Palliative Care. As we know a large number of practitioners of Indian System of medicines are working in remote areas commanding respect of the society. Their potentiality can be utilized in **Palliative care-a struggle against cancer**. The knowledge of different medical system can also be utilized for symptomatic relief to the patients according to their choice of Pathy. These health personals should be provided a proper training in Palliative Care as below:

### **Palliative Care Training Programme**

Duration - Minimum- 15 days

#### **Part-A - Introduction of Palliative Care & Palliative Care Centers**

Diagnostic methods of Cancer

- F.N.C.
- Biopsy
- Pap smears
- U.S.G.
- Cell Citology

Prognosis of Cancer

- E. Training -
- Prevention of Cancer

Cancer detection Awareness

Patient counseling & Q.O.L.

Spiritual Healing

#### **Part-C - Management of Cancer**

- Surgery
- Chemotherapy
- Radiotherapy
- Physiotherapy

#### **Part-D - Symptomatic Treatment**

Pain Management

Drugs

- Morphine
- Ayurvedic
- Homeopathic

Non invasive methods e.g.

**Panchkarma, Accupressure**



#### Nerve Blocks

Distress Management

Medhya Durgs

Yoga/Meditation

Anxiolytic drugs

Wound Care

A panel of Ayurvedic, Homeopathic & Unani Physician should be involved in preparing this combined approach.

This type of training should be available at District level and Palliative Care Center should be created at every town. The N.G.O. should come forward to start this type of centers.

The center should be financed by Government/Local bodies/Gram Sabha and at last by general public. The fund should be generated by creating awareness in locality and encourage people to donate only one rupee per day for this center.

It should be started at every door. A few members should take responsibility to raise funds, the others should take responsibility to educate the public and to search Cancer patients. The Cancer patients need Sympathy and Pathy at their door. Such a way Palliative Care Centers should plane its activities. It is certainly not a very easy job but if we will involve many retired medical personals/service man free from their liability, we will achieve our goal in the long run.

At last but not the least Palliative Care is the only help to be provided to the critically ill patients and Palliative Care Society is the only hope.

## SAVITRI DIAGNOSTIC CENTRE

Dr. P.K. Tiwari M.D. (Path.)

Dr. Ashok Srivastava Pathologist

SHOP NO. 12, GYAN MANDAL COMPLEX  
B.H.U. ROAD, LANKA, VARANASI-5

सुविधायें

• एक्स-रे

• ई.सी.जी.

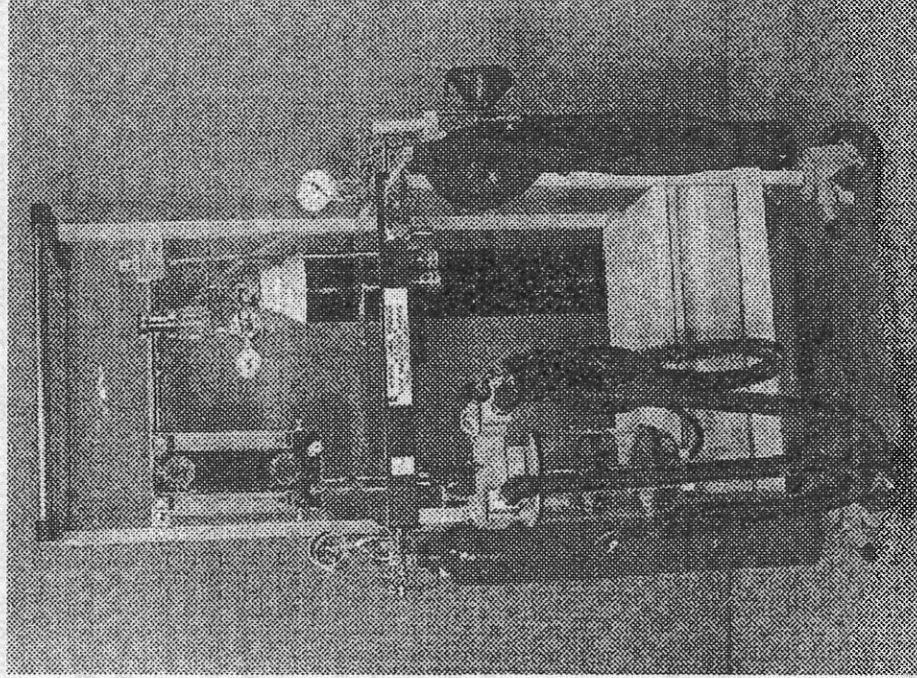
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• यू.एस.जी



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## Evaluation of Ashwagandha (*Withania somnifera*) in Sangyahan (An Experimental Study)

SHARMA SANJEEV\* AND PANDE D.N.

### Abstract

Ashwagandha root's powder is extensively used for a variety of clinical ailments and to improve general physical and mental wellbeing. The present study was conducted on albino rats and mice to evaluate some of the neuropharmacological activities of Ashwagandha useful in Sangyahan viz., antinociceptive activity of Ashwagandha and its interaction with some analgesics, antianxiety effect, and its interaction with some anaesthetics i.e. pentobarbitone and ether anaesthesia.

Ashwagandha (100 mg/kg) exhibited significant *per se* antinociceptive activity in all the three experimental paradigms used viz., the rat tail flick technique, hot plate method in mice and the acetic acid induced writhing test in mice. Ashwagandha showed positive results when tested against four different paradigms of experimental anxiety viz., open field test, Elevated plus maze, zero maze and thirsty rat conflict test and were found comparable to diazepam (1 mg/kg). Ashwagandha potentiated ether anaesthesia and pentobarbitone induced hypnosis in albino rats.

### Introduction

Ashwagandha (*Withania somnifera* Dunal, a member of Solanaceae family) is a well known psychotropic, indigenous, easily available herbal drug described in Ayurveda under the group of Balya, Bringhaniya and Madhur skandha (Charka Samhita). Ashwagandha is well known for its Rasayan, vajikaran and virechanopaga properties. It is mainly indicated for the treatment of shosha and shukradosa and also for vatavyadhi unmade and Apasmara. Many claims were made regarding its sedative and antianxiety effects by the present research workers (Singh et. al., 1989). Some workers have found that Ashwagandha has highly significant antipyretic, potent analgesic activities and highly significant anti inflammatory activity in albino rats and mice (Singh et. al., 1978).

### Experimental Work

The present study was conducted on the following parameters to investigate its usefulness in the field of Sangyahan. Experimental study was conducted on albino rats and mice to see:

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Paper Selected for 'Late Pt. R.A. Pande Memorial best Paper Award 2002'

\* Ex. Senior Resident

\*\* Lecturer and Incharge

Section of Sangyahan, Department of Shalya-Shalakyia, Institute of Medical Sciences, Banaras Hindu University, Varanasi



- (A) The analgesic effect of Ashwagandha and its interaction with some commonly used opioids and nonopioid analgesics to evaluate potentiation effect by using 'Rat tail flick Method' in albino rats Hot plate method in mice and writhing test in mice.
- (B) Anxiolytic effect of Ashwagandha by using four different paradigms in albino rats and mice viz., open field test, Elevated plus maze, zero maze paradigm and Thirsty rat conflict test.
- (C) Interaction of Ashwagandha with some anaesthetics viz, pentobarbitone hypnosis potentiation and potentiation of induction and recovery period by using Ether Anaesthesia.

### Material and Method

#### Drug

Ashwagandha (*Withania somnifera*) roots were obtained from the Ayurvedic Pharmacy of Institute of Medical Sciences, B.H.U. and its validity was confirmed by the Dravyaguna department. Coarse powder of Ashwagandha was boiled with 16 times water to prepare Kvath (4 times) then filtrate was further concentrated to semisolid according to Rasakriya described in Sharangdhara Samhita to prepare the Ghansatva of Ashwagandha.

The yield was approximately 20% For per oral (P.O.) use in experimental animals, fresh solution (Suspension) of Ashwagandha Ghansatva was made with the help of pistol and motor, in distilled water containing 0.3% carboxymethylcellulose (CMC) in the concentration of 5 mg., 10 mg and 15mg/ml. Control group of animals received equivalent volume of the vehicle (CMC) through the same route. The drug pretreatment time for P.O. use was 45 minutes.

#### Animals

These experiments were conducted on healthy chole's foster albino rats (150-200gm) and albino mice (25-30 gm) of both sexes. The animals were housed in colony cages at an ambient temperature of  $25 \pm 2^\circ\text{C}$  with 45-55% relative humidity and a 12 h light-dark cycle. The animals had free access to standard pellet chow and water.

#### Methods

##### (A) Antinociceptive Activity of Ashwagandha

###### (a) Radiant Heat Method (Davis and coworkers, 1946)

The rat tail- hot wire technique was in albino rats. The increase in the latent period of the tail flick response (sec.), to hot wire with a cutoff point of 30 sec., was

utilized as the index antinociception. Apart from *per se* effect of Ashwagandha (50, 100 and 150mg/kg P.O., pretreatment time -90 min) its effect was also noted on the antinociceptive effect of subnormal doses of morphine (0.25 mg/kg i.p.), pentazocine (2.5 mg/kg i.p.) and buprenorphine (30 µg/kg i. p.), pretreatment time 15 min.

#### **(b) Thermic Stimulation Method** (Eddy and Leimbach, 1953)

The hot plate method was used. A 22 cm diameter copper cylinder base was heated to and maintained at  $55^{\circ}\text{C} \pm 1^{\circ}\text{C}$ . A mouse was placed on the cylinder after drug (100 mg/kg P.O.) or vehicle pretreatment. The nociceptive end point, with a cut off period of 30 sec, was assessed as either licking or shaking of hind paws or jumping off the cylinder. Apart from the *per se* effect Ashwagandha its effect on subnormal dose of morphine (0.25 mg/kg i.p.), pentazocine (2.5 mg/kg i.p.) and buprenorphine (30 µg/kg i.p.) antinociception was also recorded. The pretreatment time for i.p. (intraperitoneal) administration was 15 minutes.

#### **(c) Acetic Acid Writhing Test** (Witkin et al., 1961)

In this technique male mice were injected with 0.6% acetic acid (0.25 ml per mouse i.p.). The animals exhibiting more than 30 writhes per 30 minutes were preselected for the study and used a week later. Ashwagandha was administered (100 mg/kg p.o., b.d.) for seven days and again on the day 8th, 45 min. prior to acetic acid administration. Apart from the *per se* effect of Ashwagandha its interaction with diclofenac sodium (50 mg/kg P.O. pretreatment time 45 min.) was also investigated.

#### **(B) Anxiolytic Activity of Ashwagandha**

Ashwagandha was administered orally in doses of 100 mg/kg B.D. for 7 days and on the day 8th 45 mins. before experimentation. The control animals received an equivalent volume (10 mg/kg) of distilled water containing vehicle (CMC 0.3%) twice daily for 7 days and on the day 8th, 90 min before experimentation. Diazepam (1 mg/kg p.o.) was used as a standard anxiolytic agent (Bennett et al. 1985) and was administered 45 mins. before experimentation. The dose of diazepam used did not induced any motor deficit in rats as assessed by the rota-rod test (Bennett et al., 1985).

#### **(i) Open Field Test in Albino Rats**

The test is considered as an indicator of the emotional state of the test animals (Novas et al., 1988). Each rat was observed for 5 mins. in open field apparatus. Between tests, the apparatus was thoroughly cleaned.

#### **(ii) Elevated Plus-Maze Test in Mice** (Novas et al., 1988)

This technique is equally capable of detecting anxiolytic and anxiogenic drug effects under identical conditions. The plus-maze consisting of two opposite open



arms 25 x 5 cm. Crossed with two closed arms of the same dimensions with walls 30 cm high. The arms were connected with a central square 7.5 x 7.5 cm to give the apparatus the shape of a plus sign. The mice were placed individually in the centre of the maze, facing an enclosed arm, and the time spent on the open an closed arms were recorded during the next 5 min, in a dimly illuminated room. The entry into the arm was defined as all the four feet in the arm. The apparatus was cleaned after each use.

#### (iii) Zero Maze Test in Rats

It is a modification of the elevated plus maze, based on the principle that exposure to an elevated and open component of the maze leaves to an approach conflict which is considerably stronger than that evoked by exposure to enclosed part of the maze.

The maze comprised of a black annular platform (105 cm diameter, 10 cm width) elevated to 65 cm above ground level, divided equally into four quadrants. The apparatus was illuminated by dim white light arranged in such a manner as to provide similar lux level in open and closed quadrants. During 5 min. test period each animal was observed for the time spent on open arm, number of head dips over the edge of the platform and number of scratched attend postures from closed to open quadrants were recorded. All these behaviours are increased by anxiogenic agents and attenuated by anxiolytics under identical experimental procedures.

#### (iv) Thirsty Rat Conflict Test (Vogel et al., 1971)

Male rats were deprived of water for 48 hours one hour before testing, each rat was placed in a polypropylene cage (10 x 10 x 8 inches) and allowed to locate the metallic drinking spout of the water bottle, which usually took less than two min. For testing, each rat was replaced in the cage for a period of 3 min. Electric shock (0.54 mA, 1 sec) was administered through the spout on contact of the rat with spout. The number of drinking episodes during the observation period was observed and recorded.

### (C) Interaction of Ashwagandha with Anaesthetics

#### (i) Effect of Ashwagandha on Pentobarbitone Anaesthesia

In a group of albino rats Ashwagandha was administered in 100 mg/kg p.o. and another group was treated with vehicle only. Then after a period of 90 min. pentobarbitone 30 mg/kg (3 mg/ml) i.p. was injected to all the animals. The sleeping time of each rat was noted as interval between the loss and return to the righting (Voith and Herr, 1969). The induction and recovery period were noted.



**(ii) Effect of Ashwagandha on Ether Anaesthesia** (Pande et al., 1977)

Animals of group I were treated with vehicle only while in group II, animals were treated with Ashwagandha Ghansatva 100 mg/kg (pretreatment time 90 min. for both the groups). Then under a plastic jar 10 ml of ether was introduced at the rate of 1 ml per minute, control group of five rats were placed one by one after pretreatment time in the container just before the commencement of the influx. After getting anaesthetized animals were then left in the open air to regain the righting reflex. The same procedure was done in treated group also. The period of induction and recovery time were noted.

**Statistical Analysis**

Depending upon the type of data elicited, quantitative or quantal paired, unpaired student's t-test or chi-square test was used for statistical analysis, respectively.

**Results****(A) Antinociceptive Activity of Ashwagandha**

It has been observed that Ashwagandha has significant *per se* antinociceptive effect in all the three padigms used and markedly potentiated to the antinociceptive effect of pentazocine and buprenorphine when tested against the radiant heat (Rats) and thermic stimulation method (mice) technique. Ashwagandha has also potentiated diclofenac sodium induced analgesia using writhing test in mice.

**Table 1:** Antinociceptive effect of Ashwagandha using Tail Flick response.

Group (n=5)	Mean latent period of tail flick response $\pm$ S.E. (sec.)		
	Initial	45 min	90 min 135 min
I. Control (Vehicle)	6.68 $\pm$ 0.82	7.56 $\pm$ 0.59	6.79 $\pm$ 0.49 6.09 $\pm$ 0.53
II. Ashwagandha (50 mg/kg) p.o.	6.20 $\pm$ 0.65	7.99 $\pm$ 0.79	Aa 8.83 $\pm$ 0.51 8.06 $\pm$ 0.71
III. Ashwagandha (100 mg/kg) p.o.	5.93 $\pm$ 0.56	Aa 9.76 $\pm$ 1.31	Ba 10.96 $\pm$ 1.27 11.18 $\pm$ 1.58
IV. Ashwagandha (150 mg/kg) p.o.	6.66 $\pm$ 0.56	Aa 0.72 $\pm$ 0.91	Ba 11.64 $\pm$ 1.44 12.03 $\pm$ 1.71
V. Morphine (0.25 mg/kg) i.p.	6.77 $\pm$ 0.64	Aa 10.72 $\pm$ 0.81	A 9.33 $\pm$ 0.76 7.34 $\pm$ 0.64
VI. Ashwagandha (100 mg/kg) p.o. + Morphine (0.25 mg/kg) i.p.	5.91 $\pm$ 0.53	12.95 $\pm$ 0.87	Ca 13.33 $\pm$ 1.29 12.29 $\pm$ 1.15

Table 1. Contd..

Group (n=5)	Mean latent period of tail flick response $\pm$ S.E. (sec.)			
	Initial	45 min	90 min	135 min
VII. Pentazocine (2.5 mg/kg) i.p.	6.07 $\pm$ 0.94	Ca 12.38 $\pm$ 1.24	Ca 14.47 $\pm$ 1.52	A 9.34 $\pm$ 0.91
VIII. Ashwagandha (100 mg/kg) p.o. + Pentazocine (2.5 mg/kg) i.p.	6.87 $\pm$ 0.83	C <sup>b</sup> 19.97 $\pm$ 2.19	C <sup>b</sup> 22.23 $\pm$ 2.11	C <sup>a</sup> 18.99 $\pm$ 1.63
IX. Buprenorphine (30 $\mu$ g/kg) i.p.	6.32 $\pm$ 0.57	14.55 $\pm$ 1.65	Cb 17.82 $\pm$ 2.72	C <sup>b</sup> 14.57 $\pm$ 1.36
X. Ashwagandha (100 mg/kg) p.o. + Buprenorphine (30 $\mu$ g/kg) i.p.	6.68 $\pm$ 0.68	C <sup>c</sup> 17.78 $\pm$ 1.75	C <sup>c</sup> 21.12 $\pm$ 2.71	C <sup>c</sup> 23.07 $\pm$ 2.17

p value: a < 0.05, b < 0.02, c < 0.01, c<sup>2</sup> < 0.001 (paired student's t-test) in comparison to initial reading within the group. A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

**Table 2:** Antinociceptive activity of Ashwagandha using Hot Plate method in mice (Allogenic end point).

Group (n=5)	Allogenic End Point i.e. Mean Reaction Time $\pm$ S.E. (sec.)				
	Initial	15 min	30 min	45 min	60 min
I. Control (Vehicle)	6.47 $\pm$ 0.67	c 2.45 $\pm$ 0.20	c 1.58 $\pm$ 0.27	c 1.10 $\pm$ 0.21	c 0.95 $\pm$ 0.15
II. Ashwagandha (100 mg/kg) p.o.	5.88 $\pm$ 0.92	A 3.86 $\pm$ 0.41	C 3.27 $\pm$ 0.38	C 2.78 $\pm$ 0.41	cC 2.10 $\pm$ 0.29
V. Morphine (0.25 mg/kg) i.p.	5.25 $\pm$ 1.06	3.37 $\pm$ 0.37	2.34 $\pm$ 0.43	b 1.18 $\pm$ 0.13	c 0.97 $\pm$ 0.13
Ashwagandha (100 mg/kg) p.o. + Morphine (0.25 mg/kg) i.p.	5.45 $\pm$ 0.74	C 4.50 $\pm$ 0.59	C <sup>2</sup> 4.13 $\pm$ 0.44	C 3.33 $\pm$ 0.59	bB 2.47 $\pm$ 0.50
VII. Pentazocine (2.5 mg/kg) i.p.	6.06 $\pm$ 0.87	C 3.74 $\pm$ 0.35	B 3.18 $\pm$ 0.46	c 1.52 $\pm$ 0.23	c 1.38 $\pm$ 0.26
VIII. Ashwagandha (100 mg/kg) p.o. + Pentazocine (2.5 mg/kg) i.p.	5.85 $\pm$ 0.76	C 4.93 $\pm$ 0.63	C 3.74 $\pm$ 0.55	B 3.10 $\pm$ 0.58	cC 2.25 $\pm$ 0.31
IX. Buprenorphine (30 $\mu$ g/kg) i.p.	5.21 $\pm$ 0.42	C <sup>2</sup> 4.18 $\pm$ 0.28	C 3.56 $\pm$ 0.48	aC <sup>2</sup> 3.16 $\pm$ 0.36	cC <sup>2</sup> 2.36 $\pm$ 0.21
X. Ashwagandha (100 mg/kg) p.o. + Buprenorphine (30 $\mu$ g/kg) i.p.	5.12 $\pm$ 0.54	C <sup>2</sup> 4.88 $\pm$ 0.39	C <sup>2</sup> 4.38 $\pm$ 0.24	C <sup>2</sup> 3.58 $\pm$ 0.41	C <sup>2</sup> 2.91 $\pm$ 0.31

p value: a < 0.05, b < 0.02, c < 0.01, c<sup>2</sup> < 0.001 (paired student's t-test) in comparison to initial reading within the group. A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

**Table 3:** Antinociceptive effect of Ashwagandha and its interaction with Diclofenac Sodium (Non Opioid) by using Writhing Test in mice.

Group (n=5)	No. of Wriths (mean ± S.E.)
I. Control (Vehicle) p.o.	48.83± 6.37
II. Ashwagandha (100 mg/kg) p.o. A week treatment	C 25.50 ± 2.86
III. Diclofenac Sodium (50 mg/kg) p.o.	C 19.00 ± 3.60
IV. Ashwagandha (100 mg/kg) p.o. A week treatment + Diclofenac Sodium (50 mg/kg) p.o.	C <sup>2</sup> 12.33 ± 2.80

p value:  $c < 0.01$ ,  $c^2 < 0.001$  (unpaired student's t-test) in comparison to vehicle treated control group.

### (B) Anxiolytic Study of Ashwagandha by using Different Animal Models of Anxiety

#### Open Field Test

Both Ashwagandha and Diazepam increased the number of squares crossed, reduced the period of immobility, increased rearing behaviour and decreased the number of faecal boluses. The results were highly significant in comparison to vehicle treated control group (Table 4).

**Table 4:** Evaluation of Antianxiety Effect on Open Field Paradigm in Albino Rats.

Group (n=5)	Mean values ± S.E.			
	Square crossed (n)	Immobility (sec.)	Rearing (n)	Faecal Pellets (n)
I. Control (Vehicle) p.o.	112.88 ± 7.82	56.02 ± 3.21	22.75 ± 1.66	12.00 ± 1.46
II. Ashwagandha (100 mg/kg) p.o. A week treatment	C <sup>2</sup> 158.13 ± 8.46	C <sup>2</sup> 26.24 ± 2.70	C <sup>2</sup> 41.63 ± 3.31	C 3.63 ± 0.80
III. Diazepam Single dose (1 mg/kg) p.o.	C 151.00 ± 9.98	C <sup>2</sup> 18.75 ± 1.84	C <sup>2</sup> 38.00 ± 2.76	B 3.25 ± 0.70

p value:  $A < 0.05$ ,  $B < 0.02$ ,  $C < 0.01$ ,  $C^2 < 0.001$  (unpaired student's t-test) in comparison to vehicle treated control group.

#### Elevated Plus Maze

Both Ashwagandha and Diazepam increased the number of entries in open arm and the amount of time spent in open arms and reduced the number of entries and time spent in closed arms (Table 5).



**Table 5:** Evaluation of Antianxiety Effect of Ashwagandha on Elevated Plus Maze Paradigm in Albino Rats.

Group (n=5) Treatment and dose	Mean values $\pm$ S.E.			
	No. of Entries (n)		Time Spent (sec.)	
	Open arm	Closed arm	Open arm	Closed arm
I. Control (Vehicle) p.o.	5.80 $\pm$ 0.60	12.3 $\pm$ 1.78	40.12 $\pm$ 7.53	200.74 $\pm$ 8.11
II. Ashwagandha (100 mg/kg) p.o. A week treatment	C <sup>2</sup> 11.13 $\pm$ 0.95	C 6.67 $\pm$ 0.67	C <sup>2</sup> 94.52 $\pm$ 8.81	C <sup>2</sup> 124.71 $\pm$ 9.91
III. Diazepam Single dose (1 mg/kg) p.o.	C <sup>2</sup> 12.33 $\pm$ 1.20	C 6.00 $\pm$ 0.97	C <sup>2</sup> 99.15 $\pm$ 3.40	C <sup>2</sup> 109.96 $\pm$ 5.94

p value: A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

### Zero Maze Paradigm

Both Ashwagandha and Diazepam decreased the number of entries in open arm and amount of time spent in closed arm, number of head dips and scratched attend posture were also decreased significantly (Table 6).

**Table 6:** Evaluation of Antianxiety Effect of Ashwagandha on Zero Maze Paradigm in Albino Rats.

Group (n=5) Treatment and dose	Mean values $\pm$ S.E.			
	No. of entries in Open arm	Time Spent (sec.) in closed arm	No. of Head Dips	Scratched attend posture (n)
I. Control (Vehicle) p.o.	5.50 $\pm$ 0.72	84.92 $\pm$ 7.21	5.71 $\pm$ 1.38	3.71 $\pm$ 0.79
II. Ashwagandha (100 mg/kg) p.o. A week treatment	C 2.17 $\pm$ 0.48	C <sup>2</sup> 44.70 $\pm$ 3.19	2.17 $\pm$ 0.48	1.67 $\pm$ 0.33
III. Diazepam Single dose (1 mg/kg) p.o.	C <sup>2</sup> 1.50 $\pm$ 0.34	C <sup>2</sup> 27.62 $\pm$ 3.20	A 1.67 $\pm$ 0.33	A 1.00 $\pm$ 0.26

p value: A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

### Thirsty Rat Conflict Paradigm

Both Ashwagandha and Diazepam increased the number of drinking contacts during the 3 min observation period. The effect induced by Ashwagandha was highly significant (Table 7).

### (C) Interaction of Ashwagandha with Anaesthetics Pentobarbitone Hypnosis

Ashwagandha (100 mg/kg p.o.) induced potentiation of pentobarbitone sleeping during which is highly significant. The sleep induction period is also decreased significantly (Table 8).

**Table 7:** Anxiolytic effect of Ashwagandha on Thirsty Rat Paradigm.

Group (n=6) Treatment and Dose p.o.	No. of Drinking Contacts (mean $\pm$ S.E.)
I. Control (Vehicle) p.o.	7.83 $\pm$ 0.79
II. Diazepam (1 mg/kg) p.o.	C 12.33 $\pm$ 0.88
IV. Ashwagandha (100 mg/kg) p.o. A week treatment	C <sup>2</sup> 17.83 $\pm$ 1.19

p value: A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

**Table 8:** Effect of Ashwagandha on Pentobarbitone (30 mg/kg i.p.) induced hypnosis in Albino rats.

Group (n=5) Treatment and Dose	Mean Induction Period $\pm$ S.E. (min)	Mean Recovery Period $\pm$ S.E. (min)
I. Control (Vehicle) p.o.	3.28 $\pm$ 0.31	79.8 $\pm$ 13.21
II. Ashwagandha (100 mg/kg) p.o.	A 2.06 $\pm$ 3.04	C 130.8 $\pm$ 6.34

p value: A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

### Potentiation of Ether Anaesthesia

The effect of Ashwagandha (100 mg/kg p.o. pretreatment time - 90 min.) was investigated on Ether anaesthesia in albino rats. Ashwagandha has potentiated the effect of Ether anaesthesia by significantly reducing induction time while the recovery time was not influenced much and was statistically comparable to control group (Table 9).

**Table 9:** Effect of Ashwagandha on Ether Anaesthesia in Albino rats.

Group (n=5) Treatment and Dose	Mean Induction Period $\pm$ S.E. (min)	Mean Recovery Period $\pm$ S.E. (min)
I. Control (Vehicle) p.o.	4.04 $\pm$ 0.35	1.25 $\pm$ 0.25
II. Ashwagandha (100 mg/kg) p.o.	A 2.68 $\pm$ 0.41	1.33 $\pm$ 0.26

p value: A < 0.05, B < 0.02, C < 0.01, C<sup>2</sup> < 0.001 (unpaired student's t-test) in comparison to vehicle treated control group.

### Discussion

Ashwagandha, the roots of the plant *Withania somnifera* is probably one of the most widely used Ashwagandha herbal drug to prevent or treat diseases through the restoration of a healthy balance of life forces and an integrated relationship to the



environment (Sharma 1978). Many workers found that it has highly significant antipyretic, potent analgesic activity and highly significant anti-inflammatory activity in mice (Singh et al., 1978).

Modern interest in Ashwagandha was developed after observing its adaptogenic property (Bhattacharya et. al., 1987), which tends to normalize disturbed homeostasis, irrespective of the direction of altered pathology. These investigations have rationalized some of the claims made for Ashwagandha.

These experiments were conducted to evaluate Ashwagandha in Sangyahan practice for its antinociception potentiation property, antianxiety activity and potentiation of some anaesthetics. Firstly three doses (50 mg, 100 mg and 150 mg/kg) has been used for rest of experiments in this study. It was used along with subanalgesic dose of morphine, pentazocine and buprenorphine also in rat tail flick technique and thermic stimulation method and with diclofenac sodium it was used for writhing test.

Ashwagandha in the dose of 100 mg/kg potentiated the antinociceptive effect of morphine, pentazocine and buprenorphine in the first two paradigms (i.e. rat tail flick method and Hot place method) and the diclofenac sodium in the third technique (writhing test).

The rat tail flick technique, the thermic stimulation method and acetic acid induced writhing paradigm have been extensively used to assess the antinociceptive activity of a large number of pharmacological agents. These methods have retained their popularity because of their sensitivity, specificity and reproducibility. In addition, neurotransmitter system, give a comparable positive response in all the three techniques. In contrast, peripherally acting analgesic agents are effective only when evaluated by writhing test (Bhattacharya et. al., 1978, Bhattacharya et. al. 1986). It is evidenced that observed antinociceptive effect of Ashwagandha is due to its central action.

Since, the question of reliability and validity is foremost in establishing animal tests, recourse has to be taken to compare the pharmacological profile of activity of a putative anxiolytic agent with that elicited by a benzodiazepine (File, 1985). As such, despite the additional effects that diazepam is known to have, it was used to validate the anxiolytic activity of Ashwagandha.

It has been observed with Ashwagandha (Bhattacharya et al., 1987) that pretreatment for 6-7 days appeared to induce optimal behavioural and neuropharmacological effect and this is the basis of a week long pretreatment in present study. On the contrary, repeated administration of diazepam induces tolerance (Gray, 1987) hence, it was administered acutely using a single dose which had minimal muscle relaxant activity.



In the open-field test, when animals are taken from their home cage and placed in a novel environment, they express their anxiety and fear by decreases in ambulation and exploration, rearing and grooming behaviours, and increased defecation due to heightened autonomic activity. These paradigms are attenuated by classical anxiolytics and augmented by anxiogenic agents (Gray 1987). Likewise, the elevated plus maze is based on the principle that exposure to an elevated and open maze arm leads to an approach-conflict that is considerably stronger than that evoked by exposure to an enclosed maze arm. Thus, open arm entries as a percentage of total arm entries provide a measure of fear-induced inhibition of exploratory activity. This value is increased by anxiolytics and reduced by anxiogenic agents (Pellow et al., 1985).

The inhibition of water intake by electric shock in water deprived rats is regarded as an experimental paradigm which assess conflict behaviour. The anti-conflict effect of anxiolytics is likely to be due to specific inhibition of fear motivation (Vogel et al., 1971). It has been postulated that the anti-aggressive effect of benzodiazepines is due to their anti-anxiety effect rather than their muscle relaxant or sedative actions (Bhattacharya and Dutta, 1989).

The data generated from the present study indicate that Ashwagandha has significant anti-anxiety effect, which is qualitatively similar to that of diazepam. Thus Ashwagandha like diazepam attenuated anxiety parameters in the open field, plus-maze and zero maze tests and exerted anti-conflict activity in the thirsty rat paradigm.

The trial drug Ashwagandha also produce potentiation of pentobarbitone hypnosis in 100 mg/kg dose. The time taken to start the action was significantly less and the duration of action was more prolonged as compared to the effect of 30 mg/kg dose of pentobarbitone when used alone.

This experiment confirms that Ashwagandha had direct depressant action less potent than pentobarbitone, but at the same time combination of this drug with barbiturates significantly enhanced the barbiturate hypnosis by their synergistic action (Table 8).

Ashwagandha being potent central nervous system depressant drug reduced the induction period and there by reduced the total consumption of ether (Table 9), at the same time the recovery period was also prolonged after ether anaesthesia by virtue of potentiating ether anaesthesia like other established sedative and tranquilizers. But the difference was not statistically significant. This effect could be ascribed to depressant action of this drug on central venous system. The extent of this effect is proportional to the potency of the drug used.

The findings of the above mentioned experiments were in conformity with the usual pharmacological action of the central nervous system depressant drugs. Moreover, these observations also unfolds the fact that administration of Ashwagandha before anaesthesia, enhanced the total period of anaesthesia with lesser quantity of ether. Thus the use of this medya drug under trial may definitely increases the margin of safety of anaesthetic drugs and potentiate the action of analgesics (Opiod and non opoids).

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## HIMRATAN OIL (हिम रत्न)

**Indication :** For local application in Shirahshool (Headache)/muscular spasm/low backache and Arthritis.

**Method :** Take 2-5 ml of Himratan oil and massage gently on the effected part.

### हिम रत्न (आयुर्वेदिक शीतल तैल - हिमालय की जड़ी-बूटियों से निर्मित)

आयुर्वेदिक दवाओं के शास्त्रीय सिद्धान्तों का अनुसरण करते हुए, हिमालय के वनों से प्राप्त प्राकृतिक जड़ी-बूटियों का प्रयोग कर, आधुनिक वैज्ञानिक अन्वेषणों और प्रयोगों के अनुसार निर्माण कर हिमरत्न तेल को जनसाधारण तक पहुँचाना ही हमारा उद्देश्य है ।

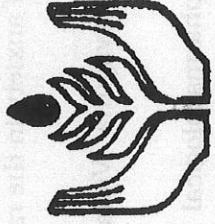
हिम रत्न शीतल तेल - इसका प्रयोग सिर दर्द दूर करता है । यह सिर को ठंडा और दिमाग को तरोताजा रखने में विशेष उपयोगी है ।

इसका मधुर गंध चित्त को प्रसन्न करता है तथा साधारण तेलों की तरह इसमें कोई रासायनिक तत्व नहीं है । इस तेल को आयुर्वेदिक चिकित्सकों के परीक्षण और उपयोगी करने वालों के प्रामाणिकतानुसार बालों की विभिन्न समस्याओं में अत्यन्त उपयोगी पाया गया है । हिमरत्न शीतल तेल विपयिषाहट रहित, भीनी-भीनी सुगन्ध वाला बालों का पोषक है । इसके नियमित इस्तेमाल से बालों का प्राकृतिक सौन्दर्य सदैव कायम रहता है । बालों की लम्बाई बढ़ती है, बाल और सिर की त्वचा स्वस्थ रहती है । रुसी और जुंदा बालों की जड़ों तक पहुँचकर उन्हें पुष्ट करता है जिससे बालों का झड़ना रुक जाता है । आलोपेशिया (गंजापन) दूर होता है । असमय बाल पकना रुकता है । माथूली जलने - कटने में भी यह तेल जल्द असर करता है ।

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## **Plasma Expanders – An Answer in Conservation of Homologous Blood**

**PANDEY K.K.**

Haemorrhagic shock is still a cause of death in surgical patients. With the vast progress made in industrialization, it is becoming commoner and commoner. Blood loss during the procedures carried out in the operating theatre is one of the major problem. The ideal treatment of haemorrhagic shock is no doubt replacement with the whole blood, but this idea can not be achieved easily. Blood transfusion besides presenting problems, relating to transmission of Serum Hepatitis, in-compatibility and allergic reactions having certain limitations regarding short shelf life, nonavailability and special storage conditions.

Often at times, during replacement of fluids we do not practice the principles of fluid and electrolyte balance. Hence it is not Uncommon to order an infusion without weighing their advantages and disadvantages. Therefore it is always advisable to decide the choice of fluid in various circumstances. Unanticipated massive traumatic or medical blood loss poses serious management problems. In these circumstances of nonavailability of homologous blood in blood bank it is sound policy to restore fluid volume to achieve normovolaemia by infusing colloid solutions either alone or in a suitable combination with a crystalloid solution. The quick deterioration of patient due to rapid loss of a large volume of blood is attributed to the fluid deficit but not to a deficit of red cell mass.

In an average healthy 70 kg man the total fluid is nearly 42 litres. This fluid is distributed in three compartments. The intracellular and extracellular compartments are the two major one. But the extracellular compartment is truly made up of two distinct spaces. The intravascular space and interstitial space. Actually there is functional differences between two, therefore it is necessary to consider them separately (Fig. 1).

Haemorrhage causes loss of blood volume and reduction of cardiac out put and there by produces a fall of arterial blood pressure. In the initial stage blood pressure may be maintained due to efficient compensatory mechanism. When the compensatory mechanism, fails to maintain the effective arterial blood pressure. The patient will be in a state of shock. Vasoconstriction of the capacitance vessels may initially increase the venous return of the heart but in a late state venous return and CVP falls, which causes cardiac out put and tissue perfusion also to drop.

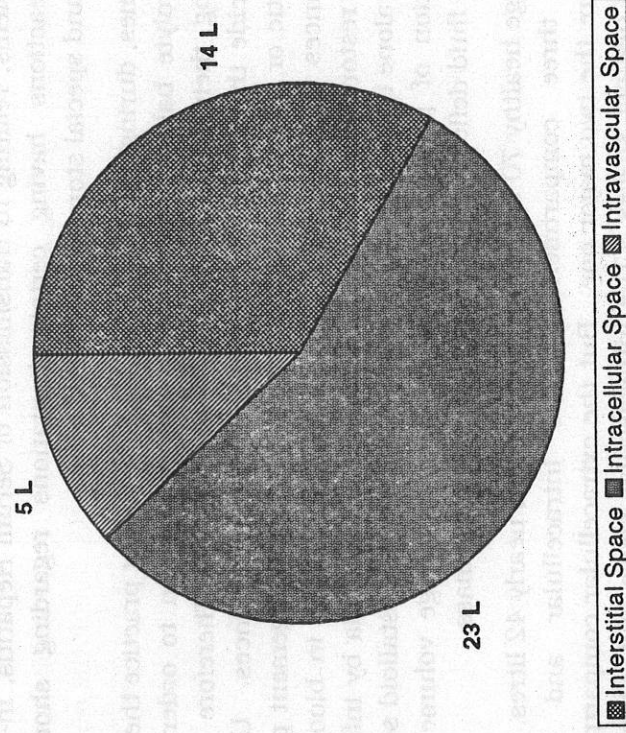
Pulmonary blood pressure is also reduced due to decreased cardiac output. The physiological dead space is increased to 75%-80% of the tidal volume.

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Lecturer, Stree Rog – Sangyahan, Department of Prasuti Tantra, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, Varanasi



Hypernoea occurs which might be due to increase in dead space ventilation and a fall in arterial pH. In case of massive haemorrhage protein free interstitial fluid moves in the vascular space and there is dilution of vascular protein causing decreased capillary osmotic pressure. Increased pulmonary capillary permeability and pulmonary artery pressure and decreased capillary colloidal osmotic pressure leads to pulmonary oedema. More over a decreased cardiac output, inhibition of hypoxic pulmonary vasoconstriction, immobility, supine posture and over infusion may lead to ARDS.



**Fig. 1.** Body fluid compartments indicating the volume of body fluid in each compartment in an average healthy 70 kg man (Twigley and Hillman, 1985).

Blood loss of 800-1000 ml. in adults may be safely and efficiently treated with colloid solution. With effective volume expansion there is haemodilution which may be beneficial to some extent as blood viscosity is reduced and peripheral blood flow is improved. Haematocrit of 26% to 30% is highly efficient but below that level blood replacement is essential. Though the facility of blood bank is available in most of the busy hospitals but the increasing demands and delay in properly cross matched and screened blood and its transfusion is not always free from hazards. Gas transport function of stored blood is not much efficient after transfusion for several hours and thus at the initial stage it behaves just as plasma volume expanders.



In haemorrhagic conditions the primary aim of the treatment is to restore normal vital functions maintaining the intravascular fluid volume. Crystalloid solutions are liberally prescribed in the perioperative period and in trauma cases because of fear of renal failure and sudden increase in potassium in the immediate post operative period. This move does not fix to the physiological principles because most of the fluid enters the interstitial space against measurements taken off the intravascular space. The introperative bleeding, vasodilator effects of anaesthetic agents of epidural and spinal analgesia brings cardiovascular changes. Crystalloid solution often present an insult to body fluid status as the requirement of their large volumes and extremely short intravascular half life.

Hence it is always preferred to avoid the blood transfusion complications, delay in quick and prompt response of the treatment, an ideal plasma volume replacement therapy is to be started immediately, having the maximum following properties:

1. The pH of the fluid should be within the pH range of human blood.
2. The solution must be iso-oncotic.
3. The oncotic pressure should be comparable to that of plasma.
4. The fluid should have a relative viscosity that is analogous with plasma.
5. Optimal volume effect for about 5 to 6 hours.
6. The intravascular half-life should ideally be between 3 to 6 hours.
7. The infused fluid must not disturb the fluid balance or dehydrate other fluid compartments.
8. The infused fluid should not unduly disturb interstitial and intracellular space.
9. Absence of oedema formation.
10. No overloading of the cardiovascular system.
11. The fluid should help to restore or improve the renal function.
12. The replacement fluid should not impair any organ function.
13. The fluid should improve the microcirculation.
14. The electrolyte composition should be similar to plasma.
15. The infused fluid should not interfere with haemostasis.
16. There should be no coating effect on blood cells by the infused fluid.
17. No interference with subsequent blood grouping and cross-matching.
18. The substitute should not suffer from dosage limitation.
19. Complete metabolic degradation and rapid elimination.
20. Absence of accumulation in tissues and cells.
21. Minimal risk of accumulation in the Monocyte- Macrophage system.
22. Long shelf life at extremes of temperature.

In practice commonly used colloid solutions are Albumin, Dextran, HES, Gelofusin, polygeline and modified fluid gelatin. WHO has included Dextran and polygeline (HAEMACCEL) in the List of Essential Drugs.

**Table 1.** Comparative properties of plasma substitutes.

	Whole Blood	Ringers	Albumin	Dextran	HES	Fluid gelatin	Polygeline
Contents	Cellular elements, proteins	Crystalloids	Albumin	Poly-saccharide	Amylopectin	Polypeptide	Polypeptide
Electrolyte Content (mmol/L)	Na <sup>+</sup> 142 Cl <sup>-</sup> 101 K <sup>+</sup> 4 Ca <sup>++</sup> 2	Na <sup>+</sup> 147 Cl <sup>-</sup> 155.5 K <sup>+</sup> 4 Ca <sup>++</sup> 2.3	Na <sup>+</sup> 154 Cl <sup>-</sup> 154	Na <sup>+</sup> 154 Cl <sup>-</sup> 154 or 5% dextrose	Na <sup>+</sup> 154 Cl <sup>-</sup> 154	Na <sup>+</sup> 120 Cl <sup>-</sup> 147 Ca <sup>++</sup> 27	Na <sup>+</sup> 145 Cl <sup>-</sup> 145 K <sup>+</sup> 5.1 Ca <sup>++</sup> 6.25
pH	7.4	5.5-6.5	6.7-7.3	4.5-5.7	5.5-7.0	6.5-7.1	7.2-7.3
Oncotic Pressure	Iso-oncotic	Non-oncotic	Iso-oncotic	Hyper-oncotic	Hyper-oncotic	Hyper-oncotic	Iso-oncotic
Intra-compartment fluid balance	Restored or maintained	Tissue oedema	Restored or maintained	Tissue dehydration possible	Tissue dehydration possible	Tissue dehydration possible	Restored or maintained
Cardio-vascular overload	Unlikely	Unlikely	Unlikely	Potential risk due to volume increase	Possible	Unlikely	Unlikely
Plasma half-life & Volume Effect	Few hours to several daily	20 minutes	> 24 hours up to 5-10 days	6-12 hours	>12 hours 17 days	>5 hours	4-6 hours
Renal function	Not impaired	Not impaired	Not impaired	May be impaired	Caution in renal damage	Not impaired	May improve
Effect on haemostasis	Possible factor activation	Dilution only	Dilution only	Impaired + Dilution effects	Impaired + Dilution effects	Dilution only	Dilution only
Accumulation in MMS	Possible	Unlikely	Unlikely	Possible	Possible	Unlikely	Unlikely

While comparing the plasma replacement, as it has already been discussed the problems of whole blood transfusion but the Albumin which is also being used in acute blood loss in many centres. 5% Albumin used to be quite popular, but it is so expensive and that is why is used only for the treatment of hypoproteinaemia. Regarding the artificial volume replacement fluid, the polysaccharides are supplied in various molecular weights, Dextran 40, 60 and 70, but the commonly used ones are low molecular weight Dextran. They are hyperoncotic due to their high colloid concentration. After infusion they cause a marked, rapid and well sustained increase in the arterial blood pressure, and tissue perfusion. The half-life and volume effect of the Dextran in circulation is about 6 to 12 hours, so there is minimal risk of overloading the circulation- if blood is transfused subsequently. Due to their long shelf-life, it can be stored at room temperature.



However Dextrans have some disadvantages, that they do interfere with the clotting mechanism, which is more marked with the higher average molecular weight. The renal functions may be impaired due to increased viscosity of urinary filtrates. Intracompartmental fluid balance is also disturbed due to hyperoncotic pressure leading to possibility of tissue dehydration. However no effects on haemostasis is impaired or there is dilution effects. As the Dextrans have incomplete electrolytes contents, electrolyte fluids must be given as well as to make up for the loss of fluid from the interstitial and intracellular spaces.

Like wise other plasma replacement fluids as HES (Hydroxy ethyl starch) and fluid gelatin exert the plasma expansion due to their higher oncotic pressure response. They show the same response as with Dextrans.

The polygeline i.e. Haemaccel has an average molecular weight of 35000 Dalton. Due to lower molecular weight it exerts the initial high osmotic activity and helps in maintaining the renal functions. As it is iso-oncotic with plasma, it dose not produce interstitial tissue dehydration and circulatory overload. The pH and viscosity are similar to plasma values and the gel point below 3°C, enables its use even after freezing. The risk of accumulation is minimal even in terminal renal failure patients because its degradation by endogenous protease enzymes. No evidences of any immunological reactions to polygeline is observed. Unlike modified fluid gelatin, polygeline does not react with fibronectin. The short half-life and the absence of volume expansion are the two beneficial properties. Not only this it is also very useful to replenish the increased capacity of the intravascular space that occurs with spinal or epidural analgesia.

In nut shell it can be concluded that the whole blood transfusion is the first choice for the management of acute haemorrhagic conditions, but due to the hazards of blood, mentioned earlier, it is not always possible. Hence the colloid solutions should be the first line of therapy in all hypovolaemic conditions. Amongst all the plasma replacement fluid Ploygeline (HAEMACCEL) and Gelofusin over comes with its advantages on the electrolyte contents, pH value and oncotic pressure optimal with that of blood plasma which maintains and restores the intercompartment fluid balance. Renal functions are not impaired and there is only dilutional effect on haemostasis.



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## Effective Agnikarm Chikitsa in Low Back Pain and Neuralgic Pain

BORSE N.V.

A neuralgic pain is very common complaint becoming ubiquitous day by day. Needless to say it's a 'gift' of modern life style !!

Neuralgia is paroxysmal pain extending along the course of one or more nerves. Actually speaking, pain is a specific type of sensation which provides us with information about tissue damaging stimuli. Thus 'pain' awakens us of the underlying danger and initiates the search for medical assistance.

In other words 'pain' is a kind of useful, alarming sensation. However at times it becomes very irritating and unbearable thus leading to some psychosomatic hazards. Many a times intensity as well as recurrence of neuralgic pain is very disturbing as well as difficult to conquer.

On this background it was decided to study and follow Ayurvedic line of treatment for neuralgias.

According to Ayurvedic concepts pain is interpreted as 'Sula' – a manifestation and 'Karma' of vata.

वातादृते नास्ति रुजा...।

सु. सू. १७/७

Vata dosa is said to be chief controller of almost all body processes. However if deranged can lead to unbearable symptoms and diseases.

These noxious symptoms and diseases are named as 'Vatavikaras' in Ayurvedic Samhitas. The Vatavikaras are 80 in number and include Padasula, grdharasi, janubheda, trikabheda, katisula, etc.

Out of these 80 vikaras, katisula was chosen as focus of attention for the present studies since katisula or low-back pain is exceedingly common. Almost everyone over 40 years of age has had some serious episode of low back pain.

Low back pain seems to be a trivial complaint but may turn out to be a menace! It's a disturbing, intense type of pain which might affect the overall efficiency of the sufferer. Besides this, the combination of multiple joints in the lumbar spine exposed to severe mechanical strains, makes precise localization of pain very difficult. A very wide range of congenital and acquired condition can lead to low backache. To compound the difficulties, pathology in the abdomen can often be expressed by low back pain. Thus the accurate diagnosis of low back pain remains uncertain.

---

Professor, Tlax Ayurved Mahavidyalaya, Pune.

In considering the diagnosis for the patients with low back pain three categories should be kept in mind-

1. The musculoskeletal system
2. The central and peripheral nervous system
3. The abdominal viscera

Some causes of low back pain can be enlisted as-

1. Spina bifida
2. Scoliosis
3. Spondylosthesis
4. Spinal Fractures
5. Prolapsed intervertebral disc
6. Spinal osteitis
7. Spinal tuberculosis
8. Pelvic sepsis
9. Ankylosing spondylitis
10. Aortic Aneurism
11. Rectal carcinoma
12. Pectal ulceration
13. Rectal lesions
14. Lumbar spondylosis
15. Lumbar stenosis
16. Primary spinal bone tumours
17. Osteoporosis
18. Osteomalacia

The treatment for low back pain has got a very wide range and varies according to cause. Treatment could be conservative viz. Physiotherapy, Splintage, traction etc. At times surgical interventions may be required.

Inspite of the technological, surgical advances; many a times it becomes really very difficult to control the pain.

Thus a different line of treatment was studied as directed by Ayurveda. According to Ayurvedic concept low back pain or Katisula can be because of many reasons like-

1. Medical Problem : Vatavarta, vatavyadhi, Avrtvata, Asthigata vata, sandhigatavata
2. Surgical problem : bhagna, aghata, arbuda, etc.
3. Gynaecological problem : yonivyapada like Udavarta, Mahayoni etc.



Whatever the cause might be, the main culprit behind low backache is vata only. Amongst the broad spectrum of treatment for vata for the present studies agnikarma was selected keeping the following points in mind-

1. Agnikarma is indicated in vatavyadhis.  
स्नेहोपनाहाग्निकर्मबन्धनोन्मदनानि च ।  
स्नायुसन्ध्यस्थिसंप्राप्ते कुर्यादावावतान्त्रितः ॥  
सु. वि. ४/८
2. Agnikarma according to its heating effect controls vatadosa thus attacks the main culprit.  
त्वङ्मांसश्रितो वायुस्त्वदाहेनैव शान्ति ।  
सु. सू. १२/४/टीका
3. Agnikarma is specifically having pain-relieving action.  
त्वङ्मांससिरास्नायुसन्ध्यास्थिस्थिते अत्युग्ररुजि वायौ ....  
सु. सू. १२/१०

Considering all these facts, 'Agnikarma' was the selected procedure for the present studies.

### Materials and Methods

#### A. Selection of cases

1. 40 cases were selected irrespective of their age, sex, socioeconomic group. Out of which 10 cases dropped out. Thus, in total, 30 cases were studied.
2. Patients with grave anatomical problems and visceral pathologies were excluded i.e. spinal fractures, peptic ulceration, renal lesions, spinal bone tumours etc.
3. Patients having muscular sprains, prolapsed IV discs, spondylitis, osteoporosis etc. were included.

#### B. Statistical Classification

1. Sex wise

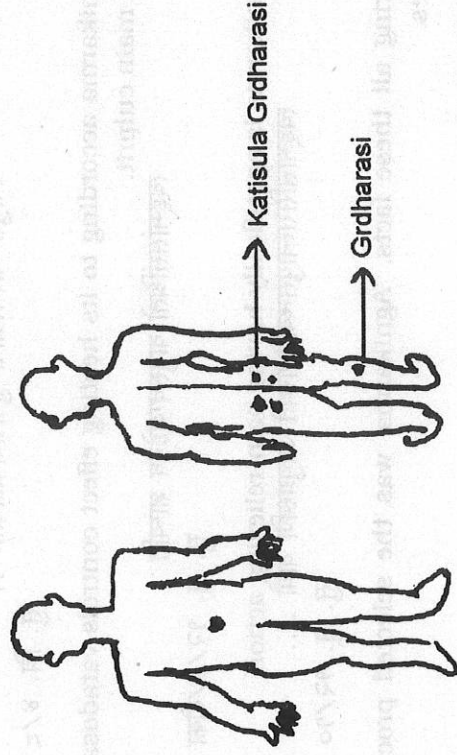
Sex	No. out of 30	Percentage
Male	14	46.67%
Female	16	53.33%

2. Age wise

Age in years	No. out of 30	Percentage
30-40	15	50.00%
40-50	10	33.34%
50-60	5	16.66%

### C. Procedure Conducted

1. Material used was suvarna salaka: Suvarnasalaka was used because of its rasayanakrma, lack of side effects life paka. Temperature it reaches while agnikarma is less hazardous i.e. 62°C as compared to salaka of other metals.



2. Agnikarma was carried at the point of maximum intensity of pain on the paravertebral lines
3. Follow up of the patient was taken after 8 days, 1 month, 3 months

### Result

	No. out of 30	Percentage
Relief with agnikarma only	14	46.67%
Agnikarma with traction	4	13.33%
Agnikarma with analgesic and traction	4	13.33%
No relief	8	26.67%

### Interpretation of result

1. Majority of the patients were relieved by Agnikarma
2. Intensity of pain was reduced in the rest. Recurrence was also suppressed.
3. Duration of Relief was about 3 month according to follow up schedule.

### Hypothesis/Mode of action

1. Owing to usna guna, agnikarma controls vata thus suls karma of vata subsides.

2. Agnikarma might be exerting some neurovascular effect thus relieving the pain i.e.
  - (i) to increase the circulation of the part and absorption of the exudates.
  - (ii) to act on the free nerve ending of pain receptors in the skin.

#### **Conclusion**

1. Agnikarma is very effective in low backache-intensity is reduced, recurrence is also controlled.
2. It is cheaper.
3. It is free from grave side effects.
4. Thus Agnikarma can be recommended as an effective therapy for low back pain.

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## An Ayurvedic Procedure (Tarpana) for Refractive Errors (Myopia)

SRIVASTAVA VIJAY KUMAR\* AND SHARMA KAVI RATNA\*\*

Acharya Sushruta described "Kriya-Kalpa" in detail as local procedures for the management of several eye diseases.

तर्पणं पुटपाकश्च सेक आश्च्योतनाजने ।  
तत्र तत्रोपदिष्टानि तेषां व्यासं निबोध मे ॥

(S.U. 18/4)

Acharya has given a fair description regarding indications and contraindications, techniques of applications, features of its proper, excessive and insufficient therapy. For each specific procedures of *Kriya-Kalpa* the time and duration are different.

As a matter of fact there are many difficulties in the practical implementation of these procedures. The methods of their application are a bit complicated. So their utility in common outdoor practice is not so easy. Besides this, the time and duration of these procedures have been given in traditional units, the indications and contraindications have been referred in terms of *Vata*, *Pitta*, *Kapha* and many other things which are controversial and confusing.

Hence in this study we attempted mainly two things: (i) standardization and modification of procedures and (ii) trial of *Tarpana Karma* on few important and commonly occurring eye diseases (Refractive errors), especially Myopia.

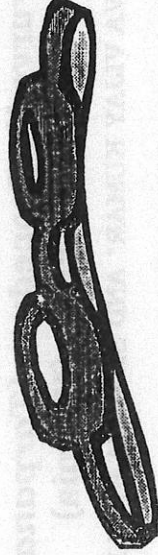
For *Tarpana Karma*, inspite of making a firm circular wall of paste of the *Urada*, around the eyes, we used swimmers' goggles. These goggles are enough hollow to accommodate whole eye. These swimmers' goggles have a soft flexible rubber rim, which firmly sticks over the periorbital area. The patient can easily blink or move his eyes and attending clinician can very easily observe them. In this technique there is no chance of leakage of the drug from either side (Plate No. 1 & 2).

### Period and Duration of Tarpana Karma

According to *Astanga-Hridiya*, *Tarpana* should be performed either in the morning or evening. In this study we performed *Tarpana* before noon (between 10 to 12). Regarding duration, the time unit used by *Sushruta* was *Vaka-matra* and by *Vagabhatta* was *Netra-unmesh*. The calculation of *Vaka-matra* or *Netra-unmesha*

\* Lecturer, Govt. Ayurvedic College and Hospital, Varanasi.

\*\* Professor and Ex-Head, Department of Shalya-Shalakyā, Institute of Medical Sciences, Banaras Hindu University, Varanasi



Swimmer's Goggles used for *Tarpana Karma*



was done in terms of seconds and minutes and was found that 100 *matra* are equal to approximately 1 minute.

*Sushruta* says that this duration can be changed according to the patient's power and *Dosha*, involved in the disease process. For example in a healthy person, *Tarpana* should be done for 500 *Vaka-matra* or 5 minutes.

#### **How many days *Tarpana-Karma* should be done?**

For *Vattika* or less severe disease, it should be done for 1 day, for *Paittika* or moderately severe diseases, it should be done for 3 days and for *Kaphaja* or more severe diseases, it should be done for 5 days. In this study *Tarpana* was done 4 times in each patient at the interval of one month and the duration was 8 minutes.

#### **Drugs for *Tarpana***

*Gau-Ghrita* and *Triphala-Ghrita* have been used for *Tarpana-karma*.

#### **Material and Methodology of Study**

50 cases of Myopia were selected for the study.

#### **Grouping of the Patients**

50 cases of Myopia were divided into 5 equal groups:



Group T<sub>0</sub> : Control group of 10 cases of Myopia were given appropriate glasses only.

Group T<sub>1</sub> : In the second group of 10 cases *Tarpana* was done with *Triphala-ghrita*. Appropriate glasses were advised.

Group T<sub>2</sub> : In the third group of 10 cases *Tarpana* was done with *Triphala-ghrita* was given orally. Appropriate glasses were advised.

Group T<sub>3</sub> : In the fourth group of 10 cases *Tarpana* was done with *Triphala-ghrita* and *Saptamrita Lauha* was given orally. Appropriate glasses were advised.

Group T<sub>4</sub> : In the fifth group of 10 cases *Tarpana* was done with *Gau-ghrita*. Appropriate glasses were advised.

### Methods

All the case were selected on the basis of detailed history, clinical presentation and diagnostic criteria.

### Poorva and Pashchat Karma

संशुद्ध देह शिरसो जीर्णान्त्स शुभे दिने ।

(S.U. 18/4)

For purification of the body 10 gms of *Triphala Churna* was given orally at bedtime to every patient of treated groups, 3 days before the main therapy (*Tarpana*). While for purification of *Shira*, 2 drops of *Khatabindu Tail* was advised to instill in both nostrils twice a day (morning and evening) for 3 consecutive days before the main therapy.

In *Pashchat Karma*, the vitiated *Dosha* were pacified by instillation of *Khatabindu Tail* like *Poorva Karma* for 3 days after the main therapy.

The *Poorva* and *Pashchat Karma* were done at every sitting of *Tarpana Karma*.

### Preparation of Drugs

The selected drugs *Triphala Churna*, *Khatabindu Tail*, *Triphala-ghrita* and *Saptamrita Lauha* were prepared in the Ayurvedic Pharmacy of Banaras Hindu University, according to literature. The *Gau-ghrita* was arranged from the out-side from an authentic source.

### Doses and Drug Administration

The dose of *Triphala-ghrita* was 5 grams twice a day (morning and evening) with 1 cup of milk. While the dose of *Saptamrita Lauha* was 1 gram twice a day mixed with appropriate amount of *Madhu* and *Ghrta*.

### Time and Duration of *Tarpana Karma*

With the help of *Ayurvedic* texts, an average time of 8 minutes was decided for each sitting of *Tarpana Karma*. Total 4 sittings were done at 1 month interval in each group. One follow-up without treatment was done at 1 month interval.

### Period of Drug Administration and Follow-up

Duration of drug administration was 90 days. First follow-up was done at 7th day of the therapy, second at 15th day, third at 30th day, fourth at 60th day, fifth at 90th day while last follow-up was done on 120th day.

### Assessment of Treatment

Subjective as well as objective parameters were used for assessment. In subjective assessment all the patients were interrogated for relief of clinical symptoms like headache, diminished vision and eyeache.

The objective assessment was based on (i) Visual acuity and (ii) Diopteric power of the glasses.

### Observations and Results

Relieved rate of clinical symptoms at last follow-up:

Groups	Diminished Vision	Headache	Eyeache
T <sub>0</sub>	77.7%	83.3%	66.66%
T <sub>1</sub>	100%	100%	100%
T <sub>2</sub>	100%	100%	100%
T <sub>3</sub>	100%	100%	100%
T <sub>4</sub>	100%	100%	100%

The above results were totally based on the patient's experience. All the treated groups show maximum relief in symptoms at 60 days interval (100%). But in control group the relieved percentage was 71.2 up to last follow-up. The relief in control group is probably due to use of appropriate glasses and proper advise of reading habits and diet etc. whereas in treated group. *Tarpana Karma* and oral drugs make them more effective.

Visual acuity and Diopteric power of the glasses have been taken to study the efficacy of treatment on objective parameters.

The mean visual acuity was calculated as 6 upon 'Mean of the denominator' of Visual acuities of total eyes.



Reduction in mean Visual acuity and mean Dioptic power indicates improvement whereas an increase in these values means worsening. In treated groups maximum reduction (28.18%) in mean Visual acuity was obtained in group T<sub>1</sub> at Vth follow-up (90 days) [Tarpana with Triphala Ghrita].

Regarding reduction in mean Dioptic power of the glasses, it was found that maximum (15.6%) reduction was present in the group T<sub>2</sub> at Vth follow-up (90 days) [Tarpana with Triphala Ghrita and Triphala Ghrita orally].

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

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