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**SANGYAHARAN SHODH**

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**EDITORIAL**

# Clinical Trials and the Legal Aspects

**Dr.D.N.Pande**

In this issue I want to draw the attention of our members and Researchers about the burning issue of **clinical trial of untested drugs** and **New National Anitbiotics Policy**.I have collected someinformation from article published at **wwww. the hindu .com** which is given below:

**Keywords:** clinical trial of untested drugs, Supreme Court direction, Union Government, mandatory standards, pharmaceutical industries.

Clinical trials of untested drugs on humans require certain mandatory standards to be followed, the Supreme Court said on Friday while directing the government to put in place a mechanism to monitor them.

The apex court directed the Centre to convene a meeting of Chief Secretaries or Health Secretaries of all the states to frame a law for regulation of clinical trials of drugs by multinational pharma companies.

A bench of justices R.M. Lodha and Madan B. Lokur granted four weeks time to the Centre to convene the meeting and for framing rules.

"Certain standards and protocol should be followed while conducting clinical trials of drugs on humans. We are concerned about human life," the bench said, asking the Centre to consider suggestions of the National Human Rights Commission on the issue.

"How do you monitor that clinical trial does not result in death and there are no side effects. There should also be proper compensation," it said.

It is said that there should be an oversight committee to monitor such trials and directed the Centre to file an affidavit by September 24 after consulting state governments.
Additional Solicitor General Siddharth Luthra submitted that the Centre is considering making amendments in the Drugs and Cosmetics Act by introducing penal provision for any violation.
Earlier, the apex court had said that uncontrolled clinical trial of drugs by multinational companies was creating "havoc" and slammed the Centre for failing to stop the "rackets" which caused deaths.

Observing that the Government has slipped into "deep slumber" in addressing this "menace", the court had earlier ordered that all drug trials will be done under the supervision of the Union Health Secretary.

In an affidavit, the Centre had admitted that 2,644 people died during clinical trials of 475 new drugs between 2005 to 2012. "Serious adverse events of deaths during the clinical trials during the said period were 2,644, out of which 80 deaths were found to be attributable to the clinical trials," the affidavit had said. "Around 11,972 serious adverse events (excluding death) were reported during the period from January 1, 2005 to June 30, 2012, out of which 506 events were found to be related to clinical trials," the Centre had said.

The court was hearing a public interest litigation (PIL), filed by NGO Swasthya Adhikar Manch, alleging large-scale clinical drug trials across the country by various pharmaceutical firms using Indian citizens as guinea pigs in those tests.
The NGO had alleged that the clinical trials by several pharmaceutical companies were going on indiscriminately in various states.

**New National Anitbiotics Policy** :
**Keywords**: National Antibiotics Policy, antibiotics consumption, NDM-1 controversy, antibiotics resistance, Chennai Declaration

**Restriction on across the counter sales of antibiotics:**

The Union Health Ministry is considering a new National Antibiotics Policy for the country to handle increasing antibiotics resistance in the country. Union Health secretary Keshav Desiraju said the government was considering a new policy in the light of an older policy drawn up in 2011, soon after the NDM-1 controversy broke out. That policy was later withheld ostensibly because of widespread protests against certain key recommendations: It had recommended a complete ban of across the counter antibiotics; and specified that high end antibiotics could be used only in tertiary care centres.

Experts claim that a policy is of vital importance to ensure that further obstinate strains do not develop. Most hospital administrators are concerned about treating a growing percentage of patients with strains of bacteria that are resistant to carbapenem — powerful third line antibiotics. This is especially so in the corporate, private hospitals, where the use of expensive antibiotics is more common, explains Abdul Ghafur, infectious diseases consultant, Apollo Hospitals.

In the three years after the first National Antibiotics Policy was shelved, resistance rose in hospitals, Dr. Ghafur says. "About three years ago, NDM-1 was three per cent in big Indian hospitals, now there is proof that it is between 20-50 per cent." Today, according to him doctors are seeing patients resistant even to colistin, a drug that could once be used against multi-resistant, gram negative bacteria. Consequently, the mortality is pretty high. "In fact, we are heading towards a pre-Fleming situation, the bacteria are seemingly invincible," he says.
In 2010, Timothy Walsh, professor of medical microbiology at Cardiff University, Wales, described in an issue of *The Lancet*, the emergence of a new enzyme that made bacteria resistant to all known antibiotics. The enzyme New Delhi Metallo 1 (NDM1) was named after the city in which it was found, Dr. Walsh explained. India took objection to naming the bacteria after the country and some of that objection was rooted in the potential threats to medical tourism in the country.

In a recent interview to *The Wall Street Journal*, Mr. Walsh was quoted as saying that "India has failed to respond to the urgent need to regulate the sale and use of antibiotics, track the incidence of resistance or improve sanitation." The article also attributes this to "poor sanitation, unregulated use of antibiotics and an absence of drug resistance monitoring."

The Chennai Declaration (chennaideclaration.org), known since as a milestone event, was held in August 2012, and brought together representatives of various specialist groups to put their heads together and draw up a road map to tackle antimicrobial resistance in the country. Dr. Ghafur, who was one of the organisers, says, "There was no controversy any more, because we were all scared and we wanted to solve this thing fast."

The Chennai Declaration pushed for the creation of a national antibiotic policy, this time, one that would be implementable. It also suggested the possibility of adopting a "liberal approach." To start with, they suggested that restriction be placed on across the counter sales of an initial list of antibiotics, and that additional drugs could be added to the list in a phased manner. They also recommended that a national antibiotic resistance surveillance system be established with representation from all regions in the country, government and private hospitals.

**Rational use of antibiotics**

Once such a national policy is formulated, whole hearted support for this policy by the state Health department is essential for implementation, says A. Muruganathan, president, The Association of Physicians of India. It is also important to ensure that the policy is implemented in full, and checks be placed to hold and punish violators, he adds. The Declaration also called for training of young medical professionals on proper use of antibiotics.

Welcoming the government move to come up with a new policy wholeheartedly, Dr. Ghafur also adds, "Even if we start today with a national policy, things will naturally not change at once. But it is key that we bring in a culture of rational use of antibiotics."

Mr. Desiraju clarified that the manner and extent to which "The Chennai Declaration" has had an influence on the National Antibiotics Policy could only be estimated when a final view emerges. The various components of the policy are still under discussion.

**We- the Anesthesiologists of Indian Medicine should always updated with burning issues raised by the NGO`s/Public Litigations /Court Directions about the use of Drugs etc. During Research Plan we have to keep all rhese isses in our mind.**

**JAI HIND JAI SANGYAHARAN JAY AYURVED**

**Devendra Nath Pande, Chief Editor-Professor & Head, Deptt. Of Sangyaharan,**

**I.M.S., B.H.U., Varanasi**.

# Principles of Management of Amavata in Ayurveda

**Abstract:**

**Key Words:**

***Introduction :***

Amavata (Rheumatoid arthritis) is a grave health problem world wide of unknown cause but the Etiopathogenesis involves diverse and complex factors such as genetic background rheumatoid factor, immune complexes and free radical etc. According to Ayurveda, the disease Amavata is just similar to Rheumatoid arthritis of modern medical science.**(K.P. Shukla & S.N. Tripathi et al 1964)** It is a autoimmune disorder characterized by symmetric, erosive synovitis and sometimes multisystem involvement.**( J.P. et al Annals of Ayurvedic Medicine Vol- 1 Issue-3 Jul-sep 2012 P.77)**

According to modern science, Rheumatoid arthritis (RA) is the most common form of inflammatory joint disease and is found up to 1% of the population. It was found to be the most common (68%) among the wide range of rheumatic diseases. Genetic predisposition is and environment considered as the main causative factor of this disease, suggested by recent tissue typing studies. Its incidence is more common in females than males. The sex ratio of female: male varying from 2:1 to 3:1 depending on the disease criteria used. **(Current Medical diagnosis and treatment 1986)**.

No age group is exempted but the peak incidence occurs between 35-55 years in female and 40-60 years in male. Peak onset is in fourth decade. However, the onset is more common in winter. **(Shambhu Kumar et al Dec. 2006 p.76)** It is the 31st leading cause of YLDs (Years lived with Disability) at global level **(J.P. et al Annals of Ayurvedic Medicine Vol- 1 Issue-3 Jul-sep 2012 P.77)**

Ayurveda is supposed to offer a holistic approach towards the management of disease hence there is great hope from this science to the ride in controlling all the autoimmune diseases in general and Amavata (RA) in particular. Madhavakara has described this disease in Madhava Nidana in 7$^{th}$century AD only with diagnostic point of view, but others like Chakrapanidutta has given management of Amavata in this book "Chakradutta". **(Acharya Sharma P.V. Ayurved Ka Vaigyanika Itihas. Chaukhambha Orientalia Varanasi. U.P. Sixth edition 262- 2002)**

**Dr. Rani Singh-Assistant Professor, Deptt. of Siddhant Darshan , Faculty of Ayurveda,IMS,B.H.U.**

This regimen includes Langhana(fasting), Deepan(promotion of digestive power) Pachana(digestion), use of Tikta(bitters), Snehana, Swedana, Virechana(purgation), and Vasti(therapeutic enema).(Chakradutta 25/9) Obviously this regimen is directed towards promotion of Agni, depletion of Ama, pacification of vitiated Vata etc in a comprehensive manner. As far as the prognosis is concerned not so good in old/chronic cases but is quite satisfactory in new cases.

***The Amavata in Ayurveda***

The word Amavata is made up of two words ie Ama and Vata. Radha Kant Dev; **(Shabda Kalps Drum; part IV Ch. Sanskrit Series VNS. U.P.)** Both have their own existence and importance from health and disease point of view**.** In this disease both are vitiated and circulated in the body causing pain, inflammation, stiffness and loss of function of the joint creating a lot of problem to the diseased. It is quit painful than any disease in its acute stage. **(Madhav Nidan 25/5-7)** The disease Amavata cannot be developed without production of Ama which is produced due to Mandagni (low Diggestive or metabolic power). Thus, mandagni can also be kept in this group as a causative factor. This Agni may be Jatharagni, Bhutagni or Dhatwagni Dalahana on Sushruta Sutra 15/23, commented that the impairment of any of them is capable of producing Ama at site. (**A.H. Su.13/15)**. When this Ama is associated with vitiated Doshas circulated throughout the body is capable of initiating the pathogenesis of many diseases of diversified symptoms **(A.H.Su.13/27)**

**The Concept of Ama**

The term Ama literally means-unripe, uncooked, immature and undigested product produced due to incomplete processing of food material because of insufficient action of Agni (A.H. Su.13/25). Acharya Charaka enumerated many factors responsible for production of Ama. These factors impair the digestive capacity resulting into production of Ama in gastrointestinal level. This Ama when remains in Amashaya(stomach/site of ama) for a longer period convert into a very toxic substance Ch. Chi.15/42-44. Sushruta said that when the kapha get admixed with food material and dominates in quantity, the resultant product is termed as Ama (Su.Su. 46/502). According to vagbhata, Ama is produced due to mandoshma/ Agni (low function of digestive power) (A.H.Su. 13/25)

**Causative factors producing Ama**

**Mandagni** (Jathragnimandya,dhatvagnimandya, and Bhutagnimandya)

1. Nishcheshtha( lack of activity /sedentary life style)
2. Ama formation due to exercise after having fatty diet.
3. Viruddha Ahara- vihara(incompatible diet and life style)
4. Ama formation due to Krimivisa(Pathogenes) .

Ama formation due to Malasanchaya (accumulation of waste)

**Other factors causing Ama formation**

**Dietary indiscretions**

1. Abstinence from food
2. Indigestion

3. Over eating
4. Ingestion of unwholesome food. **(Madhav Nidan25/1,Ch.Chi.15/42-44)**

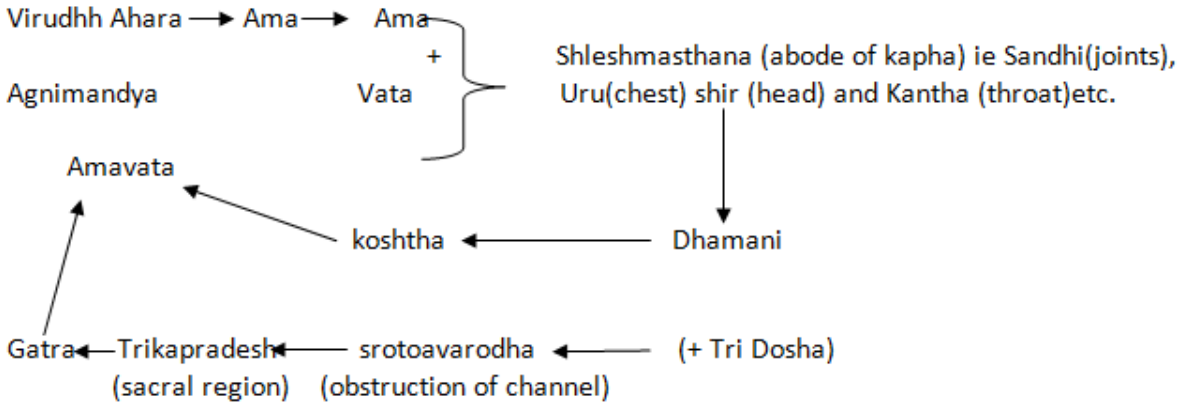
All these factors affect Jatharagni directly leading to Agnimandya and Agnimandya leads to the formation of Ama. The Mandagni due to above mentioned factors is unable to digest the Ahara (food) resulting into formation of Apakwa Ahara Rasa in Amashaya. It attains Suktatva(fermentation) with due course of time and termed as Ama or Amadosa causing various diseases. (Madhav Nidan25/2-4, A.H.Su. 13/25-27)

***The Biophysical properties of Ama***

It is guru ( heavy) in nature.
It is Drava ( liquid) in form
Snigdha (oily) in nature
Mridu(smooth)
Picchila(slimy)
Jantumatra (endowed with pathogens) (Madhav Nidan25/3)

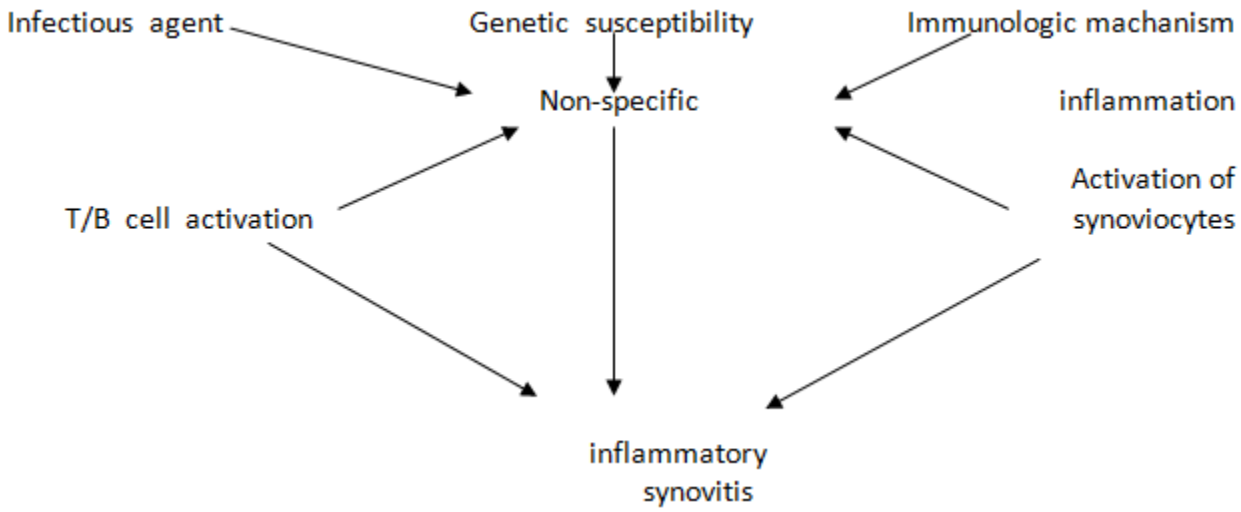
***Samprapti (pathogenesis) of Amavata***

**According to Ayurveda**




*(Prof. Singh R.H. Kaya Chikitsa Revised edition 2007 p536)*

***Present Concept of Pathogenesis according to modern science***




( *kumar etal Dec. 2006)-85*

**Immuno pathogenesis of RA:**

Hypergammaglobulinemia : The presence of Rheumatoid factor

Spleenomegaly Lymphadenopathy : Accumulation of lymphocytes in inflamed synovial membrane.

***Classification of Amavata (R.A.)***

1. According to onset (symptoms) - Acute & Chronic
2.According to Doshas-Vatolvana (vata dominant ), Pittolvana(pitta dominant), Kakholvana(kapha dominant) &Sannipatika(tridoshika) (Sha. Purv. Khand. 7/41)

**Clinical Features:**

Clinical manifestations described by Madhava can be grouped into three groups

(1) Samanya lakshana (General features)
(2) Pravriddha lakshana (Symptoms of acute exacerbation)
(3) Doshanubandh Lakshana (Symptoms accrding to predominance of dosha)

1. Samanya Lakshana(general symptoms)
   (ii) Angamarda(body ach)
   (iii) Aruchi (nausia)
   (iv) Trishna(desire for water)
   (v) Alasya (lithargy)

(vi) Gaurvam(heaviness)
(vii) Jwara(fever)
(viii) Apaka(indigestion)
(ix) Anga shunata(loss of sensation)

2. Pravriddha Lakshana

Amavata is a most painful disorder. In the acute phase, pain like multiple scorpion bite. Following symptoms are produced in this condition.

(i) Pain in joints of hands, feet head ankles, sacrum and thighs.
(ii) Painful swelling appears at the place where doshas get accumulated and that area produces pain.

It also produces low function of agni, salivation, distaste, feeling of heaviness, fatigue, burning, sensation, poly urea, pain and hardness in iliac fosa , altered sleep, thirst, vomiting coma, cardiac irregularities, constipation and other complications. **(Madhav Nidana.25/8)**
Doshanubandha Lakshana : Vata-Excessive pain, Pitta-Redness and burning sensation and in kapha—heaviness and itching etc**. (Madhav Nidana.25/6-10, Rasa Ratna. 21/46**)

***Diagnosis***

By detail history and clinical examination along with other methods as mentioned in Ayurveda like Upshaya-Anupshaya in form of diet and life style etc. Today with the help of modern tools and techniques the diagnosis of diseases has become quit easier. Different Serological, Hematological and radiological investigation help a lot in the diagnosis of difference disease in general and in Amavata or Rhumatiod arthritis particular. Some criteria for diagnosis according to modern science are

**Criteria for diagnosis (American Rheumatism Association 1988 Revision)**

Morning stiffness,Arthritis of three or more joint areas,Arthritis of hand joints,Symmetrical arthritis,Rheumatoid nodules,Rheumatoid factor ,Radiological changes

***Investigations:***Serological factors,Rheumatoid factor,ACPA (anti citrullinated protein antibody),ANA (anti nuclear antibody),HematologicalAnemia of chronic disease,Acute phase reactant-ESR,CRP ( C-reactive protein) ,
Radiological findings:X-ray,MRI,USG,Bone scanning,Synovial fluid examination

***Principles of Management***

Amavata is a disease caused due to formation of Ama and vitiation of Vata dosha, because of Mandagni (low digestive power) or Vishmagni (inappropriate digestive power). So there is always an urgent need to promote agni, pacify Vata and pachana of Ama by various means ie diet, drug and life style.

**The Principles Management in Ayurveda** mainly includes the following
Nidana Parivarjana (Avoidance of cause) *Samkheppo hi kriyayogo Nidana Parivarjanam* (Su.Uttar Tantra Chep.1) Mainly in form of diet and life style i.e. cold cloudy environment, heavy and fatty diet especially which cause indigestion and constipation etc.
Samshamana (Pacification) therapy

Samshodhana (Purification) therapy

***Samshamana*** (Pacification) This includes the following

L**anghana (**fasting **) -** Langhana does not means absolute fasting. It means light liquid diet and avoidance of heavy fats and solid diet. This promotes Agni, digests Ama and also prevents its further formation also. Different substances having properties of laghu (light), ushna (hot), teekshna and sukshma (having the property of penetration) are used for the same. Various soups of having above mentioned properties are good for the same. (**Bheshajya Ratnawali 29/1)**

- **Deepana** (promotion of agni) **-** The food and drug articles which promote agni are known as Deepaniya dravyas (substances)and the process is called Deepan. They posses katu, tikta and amla rasa (tast) the of teekshns, ushna and laghu properties, ushna veerya (potency). Sounf, marich, , heenga, jeera, yavani, and guduchi, etc. are the example of Deepaniya dravya.(**Acharya P.V. Sharma, Dravya Guna Vigyana part I).** When these are used in form of diet and drug, they promote agni, digest Ama, prevents its further formation and pacify Vata also. Panchkol(shunthi, chavya, chitraka, paippali, pippalimool) was found very effective in cases of Amavata.**( Kumar etall 2006)**
- **Pachana**(digestion/metabolism) **-** The articles which digest food, Ama and dosha etc. are known as pachana dravyas (substances)and the process is called pachana. Nagkasar, Shunthi, marich, paippali, guggulu, rasona(garlic) and sandhava lavang etc. when used in diet and drug promote digestion of Ama and pacify Vata also because of their properties. Rasona ghanavati and Simghnad guggulu has shown significant effect in Amavata**(Raja Ram Mehto etal.2011)** Use of Panchakol, was found very effective in the management of Amavata as it, digest Ama,pacify Vata and clean Srotas due to its hot and fine properties **(Kumar Shambhu etall-2006)**
- ***Shanshodhan therapy*** **:** It includes the following

  **Snehana** (emolliation)- External or internal use of oil(eranda/sandhvadi) and ghee(cow) in Niramavastha(after digestion of Ama or in jeerna/chronic /later stage of the disease) It helps in reducing the pain due to pacification of vata and also cleans the bodily Srotas(channels). Use of cow milk promotes agni. Snehana is contraindicated in Samavastha( acute stage). Amritadi ghrita has shown significant effect in Amavata**(P.S.Lekurwale etal.2010)** Internal use of errand oil is prescribed in Bhavprakash. Narayana tail, Panchguna tail, Sndhva tail andVishgarbhatail is used for local application. **(Singh R.H.)**
- **Swedana**(sudation)--Ruksha(dry) sudation with balu(sand)or sandhava lavana in acute stage and nadi sweda with dashamool /nirgundi kwatha or shasthi shali panda sweda in Niramavastha(after digestion of Ama or in jeerna/chronic /later stage of the disease)
- **Lapana** (pasting)—Lapana of ruksha, ushna and anti inflammatory herbs/drugs like erand, Arka patra nigundipatralapa, shatpushpilepa, dashangalape, or haridralapa etc

are beneficial for Lapana. (**Acharya Sharma P.V. Dravya Guna Part I,Singh R.H. Kayachikitsa Revised Edition2007 P-541)**

- **Vasti** (medicated enema)—Vasti therapy is considered as best remedy for pacification of Vata **(Ch.Su.25/Agraprakaran).**In Amavata vitiated vata is associated with Ama, therefore vasti prepared by ushna, snigdha dravyas like dashmool kwatha, sandhavaaditail, and kshar is given to pacify the vata which is very important in general and specific in Amavata proved by studies. **(J.P.etal Annals of Ayurvedic Medicine vol.-1,issue-3, Jul-Sep. p77-86 2012)**

**Virachana** (purgation)-- It improves peristaltic movement of intestine and provide relief from constipation, resulting in to cleaning of Srotas(chennals) as these are the important causes for aggravation of symptoms of Amavata. It helps to prevent the absorption and circulation of Ama from Mahasrotas (gastro intestinal tract) Some drugs like Trivrita, Aragvadha and Haritaki etc are considered best for virachana purpose. In Bhaishjya Ratnavali and Bhav prakash Sneha specially Erand Sneha is prescribed for the same.

***Symptomatic treatment***

The Ahara(diet ) and Aushadha(drugs) of having the properties of Laghu, Rukshna, Ushna, Teekshna, Katu Tikta are beneficial in Amavata. Preparation of Panchakol(Chvya Chitraka,Shunthi, Pippli and Pippli mool) found very effective in cases of Amavata because of Rukshna(dry) Ushna(hot) properties. Kumar Shambhu etal 2006 . In another study at CCRAS the combination of Shunthi, Gugul and Godanti in ratio of 1:2:1 was also found very effective in 109 cases of Amavata. (The journal of research and education in Indian medicine-Vol. XV:1 Jan-March 2009 p57-63)

The preparation of Gugul like Yogarajgugul Sinhanad Gugul and Vatari Gugul etc,Shunthi, Rasna ,Bhallataka, Nirgundi Amrita and Eranda etc.for pain and swelling. Medicated Ghrita like Shunthi ghrita or Shringabaradya are use in Amavata to pacify vata (Bhaishjya Ratnavali-29/8-29)

***Satvavajay Chikitsa*** **of Ayurveda** and phychotherepy and behavior therapy of modern science may help a lot to prevent the further complication by prevent mental stamina, as the patient disturb psychologically due to prolong ailment. Some light exercise and physiotherapy can be beneficial in rehabilitating the patient. In emergency condition any treatment which provide relief to the is justified like NSAID in acute pain and inflammation.

Thus the principles of management are based on diet ,life style and different therapies as mentioned in Ayurveda and personal experiences of eminent scholars of Ayurveda.

**Complications :** Loss of function and deformity due to ankylosis. different psychosomatic disorders like depression, peptic ulcer, hypertension,, insomnia etc. due to continuous stress.

***Measures to prevent the complications***

By obeying the rule of Pathya(wholesome) and Apathya (unwholesome)in form of diet and life style.

- **Pathya**—Food which light and easily digested as old rice ,medicated wine, meat juice of wild animals, boiled water, milk, patola, Rasona, etc. should be taken by the patients suffering from Amavata. These foods help to pacify Vata, Kapha and Ama and also prevent the further production of Ama. **(Bhaishjya Ratnavali-29/8-29)**

**Apathya**- Diet which is heavy and difficult to digest causes constipation, vitiation of Dodhas like curd with fish, sweets, milk, Kohra (kaddu), Uradadal, Arhar dal, are etc harmful for for a patient. Day time sleep, night time awakening, active movement/exercise just after taking meal Purvi Vayu (air from eastern direction) etc. ( Bhaishajya Ratnawali 29/237)

Prognosis of Amavata

This is not a life threatening disease but chronic or sub chronic in nature if is aggravated in cold cloudy environment, constipation and indigestion etc. It reduces functional ability and the life span of an individual. In Madhava Nidana the prognosis is mentioned on the characteristics of doshas ie one Doshas is Sadhya(curable)two Doshaj Yapya(relievable) and tridoshaj is Krichsadhya difficult to cure. (Madhava Nidana 25/12)

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# *A Case Study Of Madhubhavit Seevan Sutra In The Management Of Sadyovrana W.S.R. To Seevan Karma*

***Dr. Anantkumar V. Shekokar **Dr. Kanchan M. Borkar, ***Dr. Umesh B Patil**

**ABSTRACT:** The present study entitled *"To Study Madhubhavit Seevan Sutra In The Management Of Sadyovrana W.S.R. To Seevan Karma "* and aims and objectives will be decided according to prevent ugly scar. The ancient classics of *Ayurveda* have mentioned several drug useful in treatment of *Sadyovrana* one of them is *Madhu. Madhu* is an ancient remedy which has been mentioned for the treatment of wounds. Many therapeutic properties have been attributed to *Madhu* including *Krumighna* i.e. antibacterial activity and *Ropana* i.e. the ability to promote healing. Most of the micro-organism cannot grow in *Madhu* due to low water activity and p H 3.2- 4.5 when *Madhu* used as topically it dilutes with body fluid, results in formation of hydrogen peroxide which act as a antibacterial.

**Keywords:** *Vranakovidh ,Vrana, Sadyovrana, Madhu, Krumighna, Ropana, Madhubhhavit Seevan Sutra,* Plain *Seevan Sutra..*

**INTRODUCTION:**

Scars do not disappears throughout life. The scar present on cosmetic site looks ugly. Hence it should be minimized for smart look.

In today's social life, everyone wants to be presentable and personality that will make to attract people towards them and this tendency commonly seen in females. Most of us give more importance to their face in contribution of personality. If there is any scar on face by any reason that will decrease tte confidences so that aims and objectives will be decided according to prevent the ugly scar.

***Sadhyovrana* has two types *Sharir* and *Agantuj*. [3]**

In *Sadhyovrana*, *Seevankarma* is most important procedure.

This is one of the A*stavidhshastrakarma* mentioned by *Sushruta.*

*Seevan karma* is important in *Med-samuttha, Bhinna*, whose *Lekhan Karma* done, *Sadhyovrana* and movable joint *Vrana*.[4]

The ancient classics of *Ayurveda* have quoted several drugs useful in cure of *Sadhyovrana* -one of them is *Madhu*. [5]

Most of the micro-organism cannot grow in *Madhu* due to low water activity and pH 3.2- 4.5. When *Madhu* used as topically, it dilutes with body fluid results in formation of hydrogen peroxide which act as a antibacterial. [6]

$C_6H_{12}O_6 + H_2O + O_2 \longrightarrow C_6H_{12}O_7 + H_2O_2$ (glucose oxidase reaction)

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The property of *Madhu* will be approached with the help of *Seevan Sutra and is termed as Madhubhavit Seevan Sutra,* and it will be betterly acceptable than plain *Seevan Sutra*.

**AIMS & OBJECTIVES:**

To study the efficacy of *Madhubhavit Seevan Sutra* in *Sadhyovrana* w.s.r to *Seevan Karma*.

**MATERIALS & METHODS**:Materials required are as below

*Madhu* [7] :It will be purchased from medical store of *Dabur* pharmacy and should be store in air tight closed container.

| | |
|---|---|
| *RAS* | *Madhur, Kashaya* |
| *VIRYA* | *Sheet* |
| *VIPAKA* | *Madhur* |
| *GUNA* | *Ruksha, Laghu, Sheet* |
| *KARMA* | *Varnya, Sandhan, Ropan, Tridoshprashaman, Sukshmamarganusari* |

***Seevan Sutra:***Barbour linen thread no. 40

For making of *Madhubhavit Seevan Sutra* 40 no. linen thread must be taken.

**The qualities of linen thread-**

It must be sufficient strength and should retain its strength upto the period of its processing and application.

The thread should neither be too thick nor too thin.

***Madhubhavit Seevan Sutra* Cabinet**

It is used for drying the *Madhubhavit Seevan Sutra*. The threads are placed on metal hangers specially design for this purpose and these threaded hangers are put into cabinet. The cabinet having electric bulb 100 watt for the purpose of warm environment. It should be air tight. After coating on threads they should be put again in the cabinet for drying.

In the preparation of *Madhubhavit Seevan Sutra* skill hand is very important. As it require equal thickness of thread.

The standard technique of preparation of Madhubhavit Seevan Sutra which has been develop in Shalyatantra department of S.V.N.H.T'S Ayurved Mahavidyalaya, Rahuri.

**Madhubhavit Seevan Sutra Preparation**

At first linen thread no.40 is spread out lengthwise in the hangers specially design for this purpose. Madhu is smeared on the thread on its whole length with the help of gauze piece. Operator hand should be gloved before doing smear. The wet threaded hanger is placed inside specially design cabinet for this purpose. It is dried for a day. In this way thread has given one coating of Madhu. Each threaded measuring about 10 inches should be cut away from the hangers and sealed in glass test tube with aseptic precautions.

**Size of suture needle**

The size of suturing needle no.14 [curved and triangular]

**Seevan type :** Simple interrupted suture

**Place of work:**Department of Shalyatantra, S.V.N.H.T'S Ayurved mahavidyalaya,Rahuri, Tal. Rahuri, Dist. Ahmadnagar

**Duration of treatment:** Up to one month

**Consent** An informed written consent of patient will be taken before Starting the treatment.

**Research proforma:** After registration of the patient for research study specially prepared research proforma will be fill up with respect to history, physical and clinical examination and investigations.

**Drug study :**Before treatment, wound is cleaned and irrigated with normal saline, hydrogen peroxide and betadine. Suturing will be done under local anaesthesia after sensitivity test of Lignocaine 2%.

**Group:** Selection of 60 patients of 20 to 60 age groups only in female.

**Group A** 30 patient (Trial group):*Madhubhavit Seevan Sutra* used for suture. Wound dressed with sterile pad.

**Group B** 30 patient (control group).Plain linen thread used for suture. Wound dressed with sterile pad.

All patients will be subjected to routine investigations and treatments.

1} **Investigations** CBC, BSL-random, BT-CT, Urine Routine, HIV

2}**Treatments:** Antibiotic : Tab. Zifi 200 {cefixime} {FDC pharmacy} 1BD for 5 days

Anti-inflammatory-Tab. Dolokind AA {aceclofenac 100mg paracetamol 325mg serratiopeptidase 15mg} {mankind pharmacy} 1BD for 3 days

Antacid-Tab. Aciloc 150 {ranitidine 150mg} {cadila pharmacy} 1BD for 3 days

**ASSESSMENT CRITERIA:**

**INCLUSIVE CRITERIA**

*Agantuj Vrana* RTA and incised wound,Only *Urdhvajatrugat Agantuj Vrana having*Length upto 5 cm,Depth upto 2 cm.,Site- face,Sex- female, Age group- 20 to 60 yrs.,Patient with normal BT-CT. &Patient fit for local anaesthesia.

**EXCLUSIVE CRITERIA:** Any history of diseases like- Diabetes,Hypertension, Liver cirrhosis, Hepatitis B, HIV, Tuberculosis, Anaemia Hb < 8gm,Wound after 8 hrs., Head injury,Wound size length >5 cm and depth > 2 cm, Patient unfit for local anaesthesia.

**FOLLOW UP :0** day-**3**rd day-**5**th day-**7**th day-**10**day-**2**nd week-**3**rd week-**4**th week

**PARAMETER:**The sign and symptoms will be recorded and grade is as below

| | | | |
|---|---|---|---|
| Pain – | No pain | 0 | |
| | Pain on movement | 1 | |
| | Continuous pain | 2 | |
| **1)** Edema- | Absent | | 0 |
| | Present | | 1 |
| **2)** Erythema- | Absent | | 0 |

| | | |
|---|---|---|
| | Present | 1 |
| Discharge- | No discharge | 0 |
| | Serous | 1 |
| | Haemorrhagic | 2 |
| | Purulent | 3 |
| slough- | Absent | 0 |
| | Present | 1 |
| Foul smell- | Absent | 0 |
| | Present | 1 |
| Loss of tensile strength of suture material- | Absent | 0 |
| | Present | 1 |
| Scar- | Skin surface level | 0 |
| | Elevated | 1 |
| | Depressed | 2 |
| Fibrosis- | Absent | 0 |
| | Present | 1 |

**CONCLUSION**

1. *Madhu* has a good binding property, having no irritation & pain.
2. *Madhubhavit Seevan Sutra* has good Vranashodhaka and *Ropak* property.
3. *Madhubhavit Seevan Sutra* contains anti-inflammatory and antiseptic activities.
4. *Madhubhavit Seevan Sutra produces* minimal scar (thin) in comparison with plain *Seevan Sutra* and it has more efficacy than plain *Seevan Sutra*.
5. *Madhu* is easily available and economical for preparation of suture material and has a good tolerance by the patient.
6. *Madhubhavit Seevan Sutra* minimizes requirement of supportive antibiotic therapy.
7. The present case study will opens the new research path in modern surgical practices.

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# Effect of Rasa Parpati with Jatyadi Ghrita Matra Basti in the Management of Ulcerative Colitis with Colonoscopy Findings

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**Abstract:** Colitis is an acute, subacute, or chronic disease of the colon and rectum of variable etiology, pathology and unpredictable prognosis. Characterized by many local and systemic complications, cramping abdominal pain, anorexia, increased frequency of loose motion with mucous and blood, tenesmus and weight loss.A clinical study has been done on 60 patients, selected randomly and devided in two groups. Group A i.e trial group patients were treated with oral dose of Rasa Parpati & Jatyadi Ghrita Matra Basti. The Group B patients i.e. control group, were treated with Salazopyrine. The clinical assessment was done on the basis of clinical presentation of ulcerative colitis as well as colonoscopic findings, before and after the treaetment. The findings of the study have been statistically analysed with the help of t-test and the result of the study found significant.

In the absence of curative treatment this disease is a challenge among research scholars. In regard to ulcerative colitis, Rasa Parpati and Jatyadi Ghrita have properties like Grahi, Deepana, Pachana, Balya and Shodhan-Ropana. Keeping all these facts in mind a clinical study was designed on the basis of Sampraptivighatana Chikitsha, for ulcerative colitis. Rasa Parpati & Jatyadi Ghrita having disease modifying potential and a good safety profile should thus be evaluated for use in this disease condition.

**Key Words:** Ulcerative Colitis, Rasa Parpati, Jatyadi Ghrita, Matra Basti, Colonoscopy Findings

**Introduction:** Colitis is an acute, subacute, or chronic disease of the colon and rectum of variable etiology, pathology and unpredictable prognosis. Characterized by many local and systemic complications, cramping abdominal pain, anorexia, increased frequency of loose motion with mucous and blood, tenesmus and weight loss. The female to male ratio of ulcerative colitis is found to be 4:3.A clinical study was designed on the basis of Sampraptivighatana Chikitsha for ulcerative colitis. Rasa Parpati & Jatyadi Ghrita having disease modifying potential and a good safety profile was evaluated for use of these drugs, in this disease condition.

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**AIMS & OBJECTIVES:**

To study the etiological factors of Ulcerative Colitis w.s.r. to Raktatisara in the influence of Ayurvedic and Modern parameters.

To study the pathogenesis of Ulcerative Colitis w.s.r. to Raktatisara in the influence of Ayurvedic and Modern parameters.

To study the efficacy of Rasa Parpati with Jatyaadi Ghrita Matra Basti w.s.r. to RAKTATISARA with colonoscopy findings.

To study the efficacy of SALAZOPYRINE w.s.r. to RAKTATISARA with colonoscopy findings.

**Materials & methods:**

Clinical study: The study will be carried out in OPD & IPD of Shalya-Tantra dept of S.V.N.H.T.Ayurved college Rahuri . The patient attending OPD / IPD will be selected on the basis of their age, sex, religion, race, occupation etc. Fulfilling the criteria of selection & eligibility for study.

**Plan Of Study:** Prior to the commencement of the therapy in the selected patients, general information both of the patients and the disease were made. Total 60 patients were selected and devided in two groups Group A and B. Patients in group A treated with Rasa Parpati [5] in dose of 500mg which was given in capsule form twice in a day with Takra(Buttermilk) as Anupana and Jatyadi Ghrita[6] matra basti in dose of 20 ml once in a day for 45 days with six follow ups at every 7 days and colonoscopy done at every 15$^{th}$ day. Patients of group B were treated with Salazopyrine [7] 500 mg twice/daily for 45 days and same follow ups as mentioned in group A.

**Matra Basti Procedure**: Equipments: Red rubber catheter, Dispovan syringe of 50 ml, Cotton pads, Luke warm Jatyadi Ghrita, Surgical gloves.

*Procedure*: Abhyang over lumber region using tila taila for 5 mins. Fomentation done by keeping a towel dipped in warm water over the lumber region for 5 mins. Patient should lie in left lateral position. Retraction of the buttocks to expose the anal opening. Lubricate the tip of the red rubber catheter with the jatyadi Ghrita. The tip is slowly inserted in the anus upto the rectum.The loaded syringe (with Jatyadi Ghrita) is approximated to the tail of the catheter. Jatyadi Ghrita is slowly and continuously injected into the rectum. Now, the rubber catheter is slowly removed and cotton pad is placed over the anal opening. After the completion of procedure head low position is given to the patient lasting for 30 mins. If patient desires to defecate then, he is asked to avoid the urge. Patient is allowed to conduct his regular activities after 30 mins.

**INCLUSION CRITERIA:**

Patients between age of 16 to 70 yrs,Diarrhea containing watery stool, mucous, blood & with/without pus in stool,Lower abdominal cramp, early morning spurious diarrhoea, weakness,Secondary fissures in the anal canal, On Per Rectal examination muco-pus staining after withdrawal of finger., On Proctoscope examination in rectum observed superficial multiple small ulcers, Colonoscopy examination in colon observed superficial multiple small ulcers & change in regularity & granularity of mucosa.

EXCLUSION CRITERIA:

Patients below 16 and above 70 yrs. of age,Toxic megacolon, systemic manifestations like – arthritis, skin manifestations & iritis with corneal ulceration.
Hb% less than or equal to 5 mg/dl.
Acute abdominal pain, stool frequency more than 15 per day.
Carcinoma colon, diabetes Mellitus, HIV, Tuberculosis

**INVESTIGATIONS:**

Routine Blood (Hb %, TC, DC) 2. Routine urine
Stool examination for occult blood 4. Colonoscopy
5. Serum electrolyte (if necessary) 6. Barium enema (if necessary)
Biopsy

**Follow Up Study:**

The patients of OPD have checked up weekly once and the changes have observed and documented for analysis. The colonoscopy was performed at every 15$^{th}$ day.
On day '0' to assess the prior presentation of the colon.
On '15$^{th}$ ' & '30$^{th}$' day during the procedure to look for the effects of drug on colon
On '45$^{th}$ ' day to assess the presentation of after treatment.

DRUG REVIEW

Rasa Parpati and Jatyadi ghrita are selected as a drug for this present study and there detail description are as follows.

**Rasa Parpati –** Ingredients – Parada and gandhaka in ratio of 1:1 as per classical reference.

**Jatyadi Ghrita –** Ingredients – Jati, Nimba, Patola, Haridra, daruharidra, Kutaja, manjishtha, Yashtimadhu, Siktha, Karanja, Ushira, Sariva, Tuttha all ingredients in amount of 20 gm each with approximately 1 litre of ghrita.

**PREPARATION OF JATYADI GHRITA**: [45] Approximately 1 litre of ghrita is taken in a container and kalka of all the drugs together which measures around 260 gms is added (each drug used 20 gms).to the ghrita, 4.2 liters of water is added after properly mixing the kalka in ghrita. All the mixture is allowed to heat over mridu agni, after 20 hours total mixture is reduced to around 2.5 liters.

**SULFASALAZINE:**

It is used in the maintenance of remission of ulcerative colitis and the treatment of active Crohn's Disease. Sulfasalazine is not actually a pain killer, but it is given to slow down the progression of disease, dampen down the inflammation and reduce damage to the tissues. This in turn reduces the pain. Sulfasalazine is a Sulfa Drug, (a derivative of mesalazine) and is formed by combining sulfapyridine and salicylate with an azo bond.

**Result:**

**Effect of Therapy on Cardinal Symptoms of Ulcerative colitis in Group A**

| **Cardinal Symptoms** | **N** | **Mean B.T.** | **Mean A.T.** | **S.D.** | **S.E.** | **'t' cal.** | **p value** | **Result** | **% Of Relief** |
|---|---|---|---|---|---|---|---|---|---|
| Loose Stools (frequency) {ATISAR} | 30 | 2.23 | 0.66 | 0.50 | 0.091 | 17.14 | P<0.001 | H.S | 70 |
| Mucin discharge {PICCHILASTRAV} | 30 | 1.53 | 0.70 | 0.46 | 0.08 | 10.37 | P<0.001 | H.S | 54 |
| Bleeding P/R {GUDAGATA RAKTASTRAV} | 21 | 1.19 | 0.23 | 0.38 | 0.082 | 11.58 | P<0.001 | H.S | 80 |
| Abdominal pain {UDARSHULA} | 30 | 1.3 | 0.56 | 0.44 | 0.08 | 9.12 | P<0.001 | H.S | 56 |
| Nausea & Vomiting {HRULLAS EVAM CHARDI} | 11 | 1.09 | 0 | 0.30 | 0.09 | 12.11 | P<0.001 | H.S | 100 |
| Weakness {DOURBALYA} | 30 | 1.46 | 0.56 | 0.30 | 0.05 | 18 | P<0.001 | H.S | 61 |
| Anaemia {PANDU} | 17 | 1.29 | 1 | 1.49 | 0.11 | 3.18 | P<0.01 | H.S | 22 |
| Tenesmus {PRAWAHANA} | 30 | 1.53 | 0.43 | 0.30 | 0.05 | 22 | P<0.001 | H.S | 71 |
| Loss of weight | 29 | 1.51 | 1.13 | 0.62 | 0.11 | 3.36 | P<0.01 | H.S | 25 |
| Colonoscopy findings of the colon. | 30 | 1.56 | 0.83 | 0.43 | 0.07 | 10.58 | P<0.001 | H.S | 46 |

| **Cardinal Symptoms** | **N** | **Mean B.T.** | **Mean A.T.** | **S.D.** | **S.E.** | **'t' cal.** | **p value** | **Result** | **% Of Relief** |
|---|---|---|---|---|---|---|---|---|---|
| Loose Stools (frequency) {ATISAR} | 30 | 2.3 | 0.46 | 0.85 | 0.15 | 12.2 | P<0.001 | H.S | 79 |
| Mucin discharge {PICCHILASTRAV} | 30 | 1.53 | 0.30 | 0.63 | 0.11 | 10.90 | P<0.001 | H.S | 80 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Bleeding P/R {GUDAGATA RAKTASTRAV} | 29 | 1.55 | 0.17 | 0.56 | 0.10 | 13.70 | P<0.001 | H.S | 88 |
| Abdominal pain {UDARSHULA} | 30 | 1.83 | 0.03 | 0.92 | 0.16 | 11.25 | P<0.001 | H.S | 98 |
| Nausea & Vomiting {HRULLAS EVAM CHARDI} | 12 | 1.08 | 0 | 0.28 | 0.08 | 13.50 | P<0.001 | H.S. | 100 |
| Weakness {DOURBALYA} | 30 | 1.96 | 0.66 | 0.59 | 0.10 | 13 | P<0.001 | H.S | 66 |
| Anaemia {PANDU} | 17 | 1.64 | 1.23 | 0.50 | 0.12 | 3.41 | P<0.01 | H.S | 25 |
| Tenesmus {PRAWAHANA} | 30 | 1.96 | 0.3 | 0.69 | 0.12 | 13.33 | P<0.001 | H.S | 84 |
| Loss of weight | 28 | 1.71 | 1.17 | 0.50 | 0.09 | 5.88 | P<0.001 | H.S | 31 |
| Colonoscopy findings of the colon. | 30 | 1.66 | 1.03 | 0.55 | 0.10 | 6.3 | P<0.001 | H.S | 38 |

Effect of Therapy on Cardinal Symptoms of Ulcerative colitis in Group B

**OVERALL EFFECT OF THERAPY:**

Overall effect of Therapy in Group A

| **Effect** | **No of Pt.** | **Percentage (%)** |
|---|---|---|
| Cured | 03 | 10 |
| Markedly Improved | 18 | 60 |
| Improved | 09 | 30 |
| Incurable | 0 | 0 |

**Overall effect of Therapy in Group B:**

| **Effect** | **No of Pt.** | **Percentage (%)** |
|---|---|---|
| Cured | 04 | 13.33 |
| Markedly Improved | 26 | 86.66 |
| Improved | 0 | 0 |
| Incurable | 0 | 0 |

## DISCUSSION:

Probable mode of action of Rasa Parpati & Jatyadi Ghrita Matra Basti

### Mode of Action of Rasa Parpati:

Rasa Parpati is useful in patients of Raktatisara (ulcerative colitis) by, enhancing the normal functioning of Pakwashaya due to its Rasayana property and Gamitwa towards Pittadhara Kala. Parpati has an important place in Rasa Kalpas, it is obtained in the form of flakes, gets disintegrated in the body at the level of Grahanidhara Kala. Hence it is specifically being used in Grahani related disorders like Raktatisara and Pittatisara and also effective in correcting appetite. Its mode of action is such that the Agni gets locked in the Parpati Kalpa making it to act best in disorders related to Agnimandya. The dose form is such that it doesn't act in the stomach, instead starts its action in the duodenum and onwards.

As described by Bhaishajya Ratnavali in the chapter of Sangrahani Rogaadhikar , Parpati acts on digestive system as Doshaghna, Jantughna and Balya. It settles the irritation and inflammation of colon mucosa by reducing laxity. The Rasa Parpati containing Shuddha Parada and Shuddha Gandhaka acts like Sanjeevani for all abdominal disorders like ulcerative colities & other G.I. disorders. It helps to improve Grahana Karya of intestines thus, reducing complaints of Atisara (frequency). During the preparation of Rasa Parpati cow dung cakes are used which consists of Gopitta. The Rasa Parpati gets Samskara of Gopitta and attains Dipana-Pachana property and therefore causes Agnidipana and Amapachana which is desired in Raktatisara and Pittatisara.

The Rasa Parpati also helps in proper secretion of digestive juices causing correction of digestion; enhances absorption of nutrients & minerals and therefore, provides Bala and reduces malnutrition.

### Mode of Action of Jatyadi Ghrita:

RASA PANCHAKA OF JATYADI GHRITA:

| Drug | Ras | Guna | Virya | Vipaka | Dosha-Karma |
|---|---|---|---|---|---|
| Jatyadi Grita | Madhur, Kasaya | Shita, Snigdha | Shita | Katu | Pitta-Vata Shamaka |

The Jatyadi Ghrita has Shodhana and Ropana properties. It reduces inflammation by its Shodhana property and also by its anti-microbial property, and therefore, reduces pain by minimizing the inflammation of the colon mucosa and simultaneously reduces Srava (mucin discharge). The jatyadi Ghrita has Nimba as content, Nimba is Krimighna by its Prabhava and hence possess anti microbial activity in ulcerative colitis.

Given in the form of Basti, the Jatyadi Ghrita acts locally over the colon mucosa, causes Shodhana of Pittadhara Kala, enhances Shoshana of Ahararasa and therefore, reduces malnutrition and simultaneously minimizes weakness.The oily and sticky property of the Jatyadi Ghrita keeps the wound surface wet and thereby, facilitates healing of ulcers by its best Vranaropaka property. Also its raktastambhana property provides haemostasis and thereby, reduces bleeding and occult blood loss in stool.

## CONCLUSION:

Rasa Parpati & Jatyadi Ghrita show significant effect on Diarrhoea, Mucin discharge, Bleeding P/R, Abdominal pain, Nausea & Vomiting, Weakness, Anaemia, Tenesmus, Loss of weight and Colonoscopy findings.

` Basti Medicament containing Jatyadi Ghrita for its local effect has shown, improvement or cure of the ulcerations of the bowel by enhanced healing and subsiding inflammation & irritability of the colon.

It also improves functions of Apana Vayu, situated in Pakwashaya and results into improvement of ulcerations and regulation of evacuation of the colon.

Since, ulcerative colitis is an incurable disease and need to be maintained lifelong with palliative measures like steroids and anti inflammatory drugs. For a disease of short duration, use of the drugs having side effects can be neglected considering its much greater contribution in curing the disease, but, a disease like ulcerative colitis in particular; treatment has to be given for the whole life where the massive side effects of steroid therapy cannot be overlooked.

For such a diseases, the role of Ayurvedic therapy is very vital, as Rasa Parpati & Jatyadi Ghrita show very minimal or no side effects and has been proved effective in limiting the symptoms of ulcerative colitis, in the present study.

Considering Surgical management, the only option a patient of colitis is left with; is to undergo a pan-colectomy with abdomino-perineal resection of the whole large bowel including the rectum and finally a colostomy which is very uncomfortable in the personal as well as social life of the patient and as evident by the history of such patients, carrying a colostomy bag and maintenance of its hygiene is a continuous mental trauma to the patient.

An attempt has been made to minimize these colostomy associated complications, with an alternative of ileo-rectal anastomosis with ileal pouching (making an ileal reservoir to delay evacuation period) but this particular surgery is also under controversy.

Keeping in mind these complications of surgical management, this Ayurvedic therapy is definitely a better option.

The Rasa Parpati was administered in the form of capsules, which has increased the palatability of the drug and also prevents nausea and vomiting in a few patients because of its unpleasant and unacceptable taste. This preparation of Rasa Parpati in the form of capsules is modernization of Ayurvedic treatment and route of administration.

The treatment with Rasa Parpati & Jatyadi Ghrita for the duration of 45 days shows marked relief in some patients and mild or moderate relief in some patients, depending upon the presentation and chronicity of the disease.

In a few number of patients continuation of the therapy for a longer duration may show even better results on colitis.

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***APPEAL***

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# Re-canalization of fallopian tube after laparoscopic tubal ligation - A case report

*Dr. Anuradha Roy ** Prof. Manjari Dwivedi ***Prof. Mukta Sinha **** Dr. Pathak Meenakshi S.N

**Abstract:** A multi-gravida, G6, P4, A2, L4, last delivery 7yrs back, full term spontaneous vaginal delivery aged 39yrs, professionally housewife, married for 15 yrs, was referred from outside attended OPD(No.24). The case illustrates Pregnancy following post laparoscopic ligation with a prolapsed uterus.

**Key words-** Laparoscopic ligation, pregnancy, failure rate, prolapse uterus, hysterectomy.

**Introduction**- In female sterilization, tubal ligation is a permanent method of birth control. The fallopian tubes are cut or blocked, which prevents pregnancy by blocking ovum to fertilize the sperm in the fallopian tube and get implanted into the uterus. There are two methods of ligation - Traditional and Laparoscopic. Laparoscopy makes it possible to see and do the surgery through small incisions in the abdomen. In Laparoscopic tubal ligation a silastic band or tubal ring is applied involving doubling over of the fallopian tubes. The failure rate for tubal ligation is about 0.2-1.5% percent overall[1] . In a study on Laparoscopic tubal ligation (Jessica L Versage, MD, Chief Editor: David Chelmow, MD, updated on Nov 13,2012) there was a 1 year life-table pregnancy probability of 2.5 per 1000 procedures.[2] Most failures occur within 2 years of operation. At the end of 10 years, failure is reported in 1.8% [3]. So, while the chances of getting pregnant are low. Women who have had a tubal ligation and subsequently get pregnant are at increased risk for an ectopic pregnancy[4]which is reported in 0.2-0.3% [5]. Recanalization or formation of tuboperitoneal fistulas may also occur [6].

**Case Report—** A multi-gravida, G6, P4, A2, L4, last delivery 7yrs back, full term spontaneous vaginal delivery. aged 39yrs, professionally housewife, married for 15 yrs, was referred from outside to us, OPD(No.24), Prasuti Tantra, Ayurvedic wing, Sir Sunderlal Hospital, Banaras Hindu University, Varanasi, Uttar Pradesh, India, with a complain of prolapsed uterus and wants hysterectomy. Her menstrual history was irregular pattern. She had a history of Laparoscopic Tubal Ligation 8 yrs back. The patient was sent for all routine investigations for hysterectomy.

On P/V examination- Uterus was slightly bigger, soft with freely mobile and normal fornices. Abdominal Ultrasonography revealed Bulky prolapsed uterus with altered myometrium, echotexture & contour with increased myometrial vascularity (? Invasive mole) (USG plate shown with skipping the patient's identity- Plate1.).

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**Plan Of Surgery**- A tentative diagnosis was made on bigger than normal uterus with suspicion of Invasive mole (USG). As the uterus was bigger for Vaginal Hysterectomy, patient was taken for Abdominal Hysterectomy.

**Intraoperative Findings:**After laparoscopic ligation in 2004, there was re-canalization of the fallopian tube at fimbrial end.(Fig-1)

There was direct embedding of the left fimbrial end into the uterine cavity (Fig-2).

The right sided tube with intact silastic band was observed (Fig-3)

Uterus cut open and a degenerated Gestational sac with placenta and macerated baby (Fig-4).

Patency of the ectopic invasion of the fallopian tube was observed (Fig-5).

Pan-Hysterectomy done and the whole sample were sent for the Histopathological examination (HPE).

**Discussion-**

Laparoscopic tubal ligation is one of the commonest types of preferred procedure as a permanent method of female contraception, as the procedure is simple and cost effective with a minimum hospital stay. Failure rate of this is also not uncommon but re- canalization of the fallopian tube by embedding the fimbrial end directly into the uterine cavity and pregnancy following it is a rare of its incidence. Intra operative finding also shows the right sided tube with the silastic white band which nullifies the chance of pregnancy from that particular tube.The left tube probably made patent connectivity with left ovary and uterus by developing fistula between left tube and ovary (Fig 2a) and tube and uterus (Fig 2b).The probable cause of pregnancy may be either sperm coming normally to the fallopian tube and retrograde movement of the fertilized ovum to the uterus or the matured ruptured ovum comes directly to the uterus through the fistula and fertilization taking place in the uterus itself.

Thus to the best of our knowledge, this kind of pregnancy embedding the fimbrial end directly into the uterine cavity is unique of its own and previously not been reported.

Thus the case illustrates Pregnancy following post laparoscopic ligation with a prolapsed uterus.

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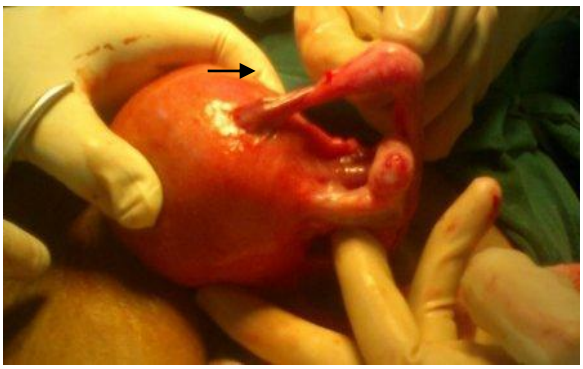
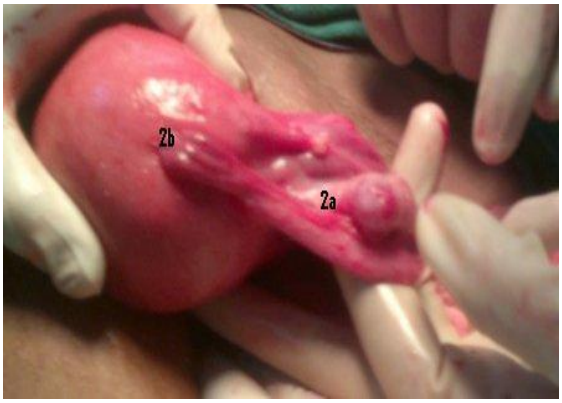
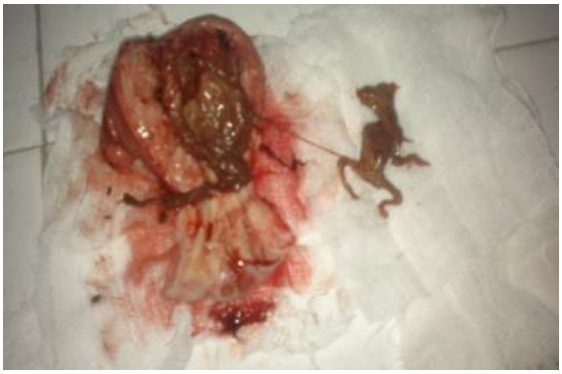


**(Fig.1-**re-canalization of the fallopian tube at fimbrial end on left side of fundus of uterus. **)**

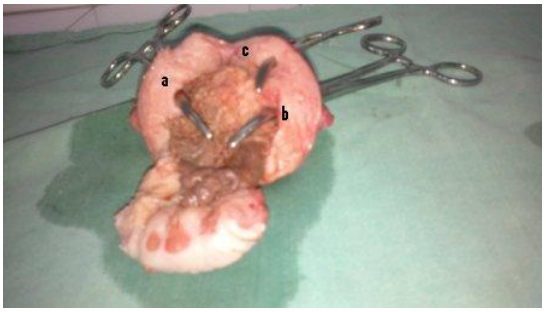



**(Fig.2a-** Probable fistula between left tube and ovary**)**

**(Fig.2b-** Probable fistula between left tube and uterus)



**(Fig.3-** degenerated Gestational sac with placenta and macerated baby**)**




**(Fig.4-** Patency of the ectopic invasion of the fallopian tube**)**
Normal opening of right sided fallopian tubeat the cornual end. Normal opening of left sided fallopian tube at the cornual end.Ectopic Invasion of left fimbrial end directly into the fundus of uterus.

# Clinical Trials and the Legal Aspects

**Dr.D.N.Pande**

Clinical trials of untested drugs on humans require certain mandatory standards to be followed, the Supreme Court said on Friday while directing the government to put in place a mechanism to monitor them.

The apex court directed the Centre to convene a meeting of Chief Secretaries or Health Secretaries of all the states to frame a law for regulation of clinical trials of drugs by multinational pharma companies.

A bench of justices R.M. Lodha and Madan B. Lokur granted four weeks time to the Centre to convene the meeting and for framing rules.

"Certain standards and protocol should be followed while conducting clinical trials of drugs on humans. We are concerned about human life," the bench said, asking the Centre to consider suggestions of the National Human Rights Commission on the issue.

"How do you monitor that clinical trial does not result in death and there are no side effects. There should also be proper compensation," it said.

It said that there should be an oversight committee to monitor such trials and directed the Centre to file an affidavit by September 24 after consulting state governments.

Additional Solicitor General Siddharth Luthra submitted that the Centre is considering making amendments in the Drugs and Cosmetics Act by introducing penal provision for any violation.

Earlier, the apex court had said that uncontrolled clinical trial of drugs by multinational companies was creating "havoc" and slammed the Centre for failing to stop the "rackets" which caused deaths.

Observing that the Government has slipped into "deep slumber" in addressing this "menace", the court had earlier ordered that all drug trials will be done under the supervision of the Union Health Secretary.

In an affidavit, the Centre had admitted that 2,644 people died during clinical trials of 475 new drugs between 2005 to 2012.

"Serious adverse events of deaths during the clinical trials during the said period were 2,644, out of which 80 deaths were found to be attributable to the clinical trials," the affidavit had said.

"Around 11,972 serious adverse events (excluding death) were reported during the period from January 1, 2005 to June 30, 2012, out of which 506 events were found to be related to clinical trials," the Centre had said.

The court was hearing a public interest litigation (PIL), filed by NGO Swasthya Adhikar Manch, alleging large-scale clinical drug trials across the country by various pharmaceutical firms using Indian citizens as guinea pigs in those tests.

The NGO had alleged that the clinical trials by several pharmaceutical companies were going on indiscriminately in various states.

Keywords: clinical trial of untested drugs, Supreme Court direction, Union Government, mandatory standards, pharmaceutical industries

New National Anitbiotics Policy on anvil
Restriction on across the counter sales of antibiotics
The Union Health Ministry is considering a new National Antibiotics Policy for the country to handle increasing antibiotics resistance in the country.
Union Health secretary Keshav Desiraju said the government was considering a new policy in the light of an older policy drawn up in 2011, soon after the NDM-1 controversy broke out. That policy was later withheld ostensibly because of widespread protests against certain key recommendations: It had recommended a complete ban of across the counter antibiotics; and specified that high end antibiotics could be used only in tertiary care centres.
Experts claim that a policy is of vital importance to ensure that further obstinate strains do not develop. Most hospital administrators are concerned about treating a growing percentage of patients with strains of bacteria that are resistant to carbapenem — powerful third line antibiotics. This is especially so in the corporate, private hospitals, where the use of expensive antibiotics is more common, explains Abdul Ghafur, infectious diseases consultant, Apollo Hospitals.
In the three years after the first National Antibiotics Policy was shelved, resistance rose in hospitals, Dr. Ghafur says. “About three years ago, NDM-1 was three per cent in big Indian hospitals, now there is proof that it is between 20-50 per cent.” Today, according to him doctors are seeing patients resistant even to colistin, a drug that could once be used against multi-resistant, gram negative bacteria. Consequently, the mortality is pretty high. “In fact, we are heading towards a pre-Fleming situation, the bacteria are seemingly invincible,” he says.
In 2010, Timothy Walsh, professor of medical microbiology at Cardiff University, Wales, described in an issue of *The Lancet*, the emergence of a new enzyme that made bacteria resistant to all known antibiotics. The enzyme New Delhi Metallo 1 (NDM1) was named after the city in which it was found, Dr. Walsh explained. India took objection to naming the bacteria after the country and some of that objection was rooted in the potential threats to medical tourism in the country.
In a recent interview to *The Wall Street Journal*, Mr. Walsh was quoted as saying that “India has failed to respond to the urgent need to regulate the sale and use of antibiotics, track the incidence of resistance or improve sanitation.” The article also attributes this to “poor sanitation, unregulated use of antibiotics and an absence of drug resistance monitoring.”
The Chennai Declaration (chennaideclaration.org), known since as a milestone event, was held in August 2012, and brought together representatives of various specialist groups to put their heads together and draw up a road map to tackle antimicrobial resistance in the country. Dr. Ghafur, who was one of the organisers, says, “There was no controversy any more, because we were all scared and we wanted to solve this thing fast.”
The Chennai Declaration pushed for the creation of a national antibiotic policy, this time, one that would be implementable. It also suggested the possibility of adopting a “liberal approach.” To start with, they suggested that restriction be placed on across the counter sales of an initial list of antibiotics, and that additional drugs could be added to the list in a phased manner. They also recommended that a national antibiotic resistance surveillance system be

established with representation from all regions in the country, government and private hospitals.

**Rational use of antibiotics**

Once such a national policy is formulated, whole hearted support for this policy by the state Health department is essential for implementation, says A. Muruganathan, president, The Association of Physicians of India. It is also important to ensure that the policy is implemented in full, and checks be placed to hold and punish violators, he adds. The Declaration also called for training of young medical professionals on proper use of antibiotics.

Welcoming the government move to come up with a new policy wholeheartedly, Dr. Ghafur also adds, “Even if we start today with a national policy, things will naturally not change at once. But it is key that we bring in a culture of rational use of antibiotics.”

Mr. Desiraju clarified that the manner and extent to which “The Chennai Declaration” has had an influence on the National Antibiotics Policy could only be estimated when a final view emerges. The various components of the policy are still under discussion.

Keywords: National Antibiotics Policy, antibiotics consumption, NDM-1 controversy, antibiotics resistance, Chennai Declaration

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# A conceptualised review on pain

*Dr.Rahul.Hegana[1], Dr.Hemant Toshikane[2]*

**Abstract –**

Pain is a potential warning signal about existence of a problem or threat which needs to be addressed and solved in order to prevent further damage. In ayurvedicclassics we will get different synonyms of pain as such *vedana,shoola,dukha,ruja,peeda*etc.Pain incapacitates and forces a person to rest or minimizes mechanical activity and urges the person to take immediate action. The burden of pain on everyday lifehandicaps an individual's emotional wellbeing as well. Ayurveda rightly encompasses the deha-manah concept and it's inter-relationship in achieving *vedanaharana*. This literary review work puts into picture the basic understanding of concept of pain and its presumptuous effect clinically observed with ultimate aim of ways of achieving analgesia.

**Keywords** – *pain,shoola, vedana, pain management, chronic pain, acute pain.*

## Introduction

Pain is defined as unpleasant sensation and emotional experience associated with or without actual tissue damage.Pain is an intensely subjective experience which is felt all over the body including the manahexcept hair, tip of nails.[1]More than half of all hospitalized patients experienced pain in the last days of their lives and although therapies are present to alleviate most pain for those dying of cancer, research shows that 50-75% of patients die in moderate to severe pain.[3]When asked about four common types of pain, respondents of a National Institute of Health Statistics survey indicated that low back pain was the most common (27%), followed by severe headache or migraine pain (15%), neck pain (15%) and facial ache or pain (4%).[2]Back pain is the leading cause of disability more number of people between the ages of 20-64 experience frequent back pain.[2]Adults with low back pain are often in worse physical and mental health than people who do not have low back pain: 28% of adults with low back pain report limited activity due to a chronic condition, as compared to 10% of adults who do not have low back pain. Also, adults reporting low back pain were three times as likely to be in fair or poor health and more than four times as likely to experience serious psychological distress as people without low back pain. [2]

**Aims and Objectives**

- To present a conceptualised review of ayurvedic perspective and modern understanding of pain as a symptomatology
- To understand efficient management of pain through various approaches.

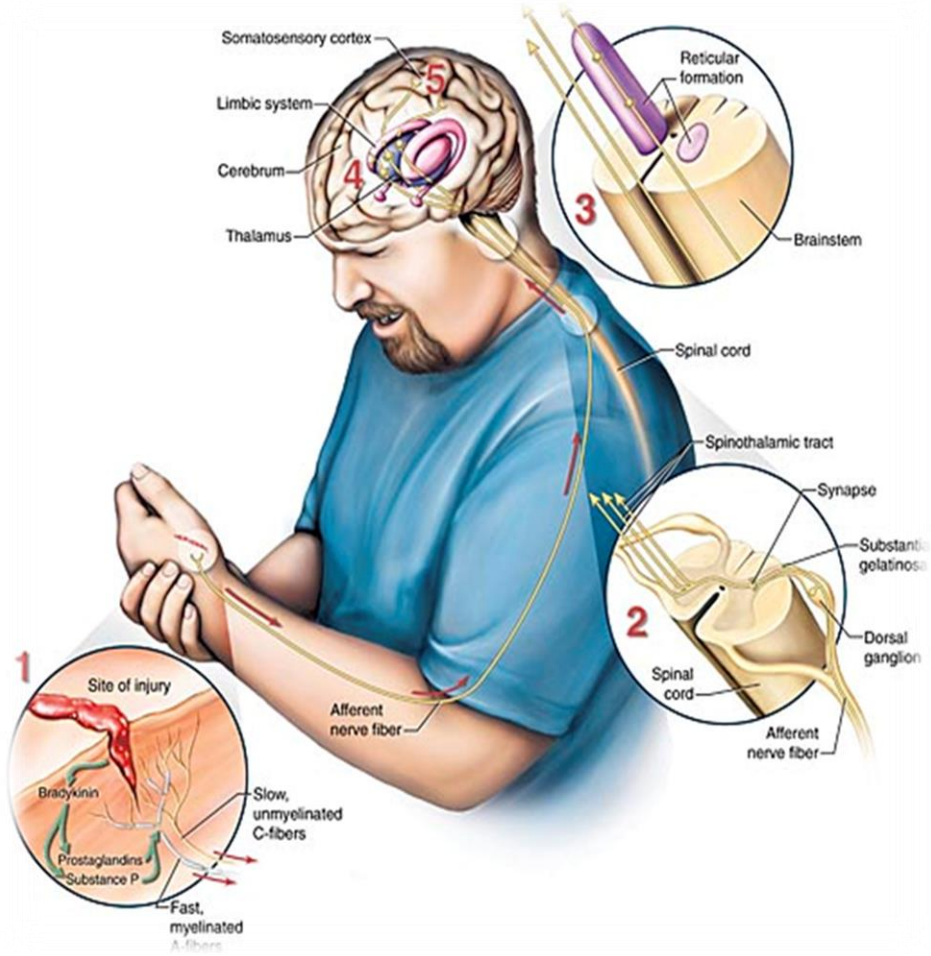
**Concept of Pain andPain Pathway in Ayurveda**

Arogyata as samdosha and roga as vishamdoshaavastha are regarded respectively. Tantra books explained spinal cord and Nerves under heading Nadi. Totally three nadis which extend from neck to downward closely relate to vertebral column. Centrally situated is the sushumnanadi and on either sides are ida and pingala which are surya and chandranadi respectively. It is possible toweighagainstnadis with the Autonomic nervous system, with the sajnavahinadi (towards brain) being sensory and manovahinadi (towards organ) playing the motor efferents . Yogic literature described prana flows through these nadis viz. Ida, Pingala, Sushumana, Gandhari, YashwaniNadis etc. with help of vata.

Vedanaoriginal *dhatu "Vid"*means*jnana*i.e.sensation or perception, knowledge .Shoola has been described as an outcome of Vatavyadhi and can be categorized as a symptom and as a disease. There cannot be shoola without involvement of vata but pitta and kapha influences the nature and intensity of pain.[4]

AcharyaSushrutha opines that all three doshas (vata, pitta, kapha) as a whole are responsible for the origin, development and perception of pain.Inayurveda any pain will cause doshavaishamyata which stimulate the indriyas and are sensed through the vatavaha and sangyavahanadis by manah and atma. These respond via the sangyvahanadi to the manah and atma which inturnsends the response from manah and atma which is communicated to panchajnanendriyaviamanavahanadi.

**Concept of Pain and Pain pathway in Modern**




A noxious stimulus is defined as an actually or potentially tissue damaging event transduced and encoded by nociceptors.[3] Nociceptor is a sensory receptor that responds to potentially damaging stimuli by sending nerve signals to the spinal cord and brain. This process called nociception

Grossly noxious stimuli are Mechanical (pinching or other tissue deformation), Chemical(exposure to acid or irritant) and Thermal(highor low temperatures).There are pain pathwayswhich primarily includes the fast pain pathway, e.g. sharp pricking pain, cutting pain etc which are acute in nature. Response time within 0.1 sec, wherein the A

alpha fibres are involved .Secondly the slow pain pathwaye.g. Burning, throbbing are chronic pain.The reaction time after fast pain is 1 second and C fibers are involved.The fibres of mechanicalnoxious stimulus are fast pain pathway .Chemical stimulus is slow pain pathway.

Neo spinothalamic tract is a component of fast pain pathway, it mainly passes from Lamina I (laminamenginalis) of dorsal horn of spinal cord then it crosses immediately the opposite site of cord through anteriorcommissure and pass upwards to brain stem in ant lateral columnsmainly terminates at the thalamus and brain also at ventro-basal complex of dorsal column. Likewisethepaliospinothalamic tract is slow pain pathway; it mainly passes from Lamina I,II (substaniagelatinosa) andLaminaV.Then it forms a long fiber and joins fast pain pathway. Noxious stimulus transmission occurs by different neurotransmitterlikeserotonin, bradykinin, histamine, potassium ion, acetylcholine, proteolytic enzyme, prostaglandin, glutamate, substance P etc.Pain is subsided by Endogenous analgesic system which is stimulated by stress response of pain. Pain inhibitory complex is located in dorsal horn which on activation secrets chemical enkephalin which blocks pain sensation.

**Management**

In ayurvedavedanashamana is achieved by drugs as mentioned in sangyasthapanagana, vedanasthapanagana, rasoushadhi,vatharadravayas, vataanulomana and shoolaprashamanadravyas. Mode of action of these drugs mainly based on rasa,virya, vipaka and prabhava. Most of the drugs act as vatahara and some act on sangyavahasrotas. In ayurveda different procedure are explained like snehan ,swedan ,bastietc which are of help in pain management.There is explanationofparasurgical procedures like agnikarma,raktamokashanetc for pain management.Yoga and satvajayachikista which give strength to mind and encounter pain.

Conventionally the method of pain management includes oral medication (mainly contains anti-inflammatory,analgesic,antispasmodic and antidepressant), as well as surgical intervention,nerve block, transcutaneous electrical nerve stimulation ,acupuncture,LLLT( low level laser therapy) on the former failing to achieve analgesia. In recent times they are using psychological approach which in corporates cognitive and behavioural therapy, biofeedback mechanism and hypnosis.[5]

**Howthey act like analgesics?**

Procedurelike snehana which includes bahyakarma like abhyanga, lepa, udavartan, mardan, parisheka, padhaghata.Abhyntarasnehapana of sarpi,taila, vasa, majja as kevala or pravicharanasnehanamethods.By resorting to these procedure vatashaman is achieved mainly by action of drugs havingvataharaproperty.Byabhyanga we give touch stimulation by which pain receptors are blocked(pain gate theory).

Swedana improves the localized/general blood circulation increasing venous drainage. Swedana removes sthanikastrotodushti in terms ofstrotoavarodha, doesamapachana ultimately resulting in doshashamana. Application of heat causes relaxation of muscles and tendons improves the blood supply and activates the local metabolic processes which are responsible for the relief of pain, swelling, tenderness and stiffness.

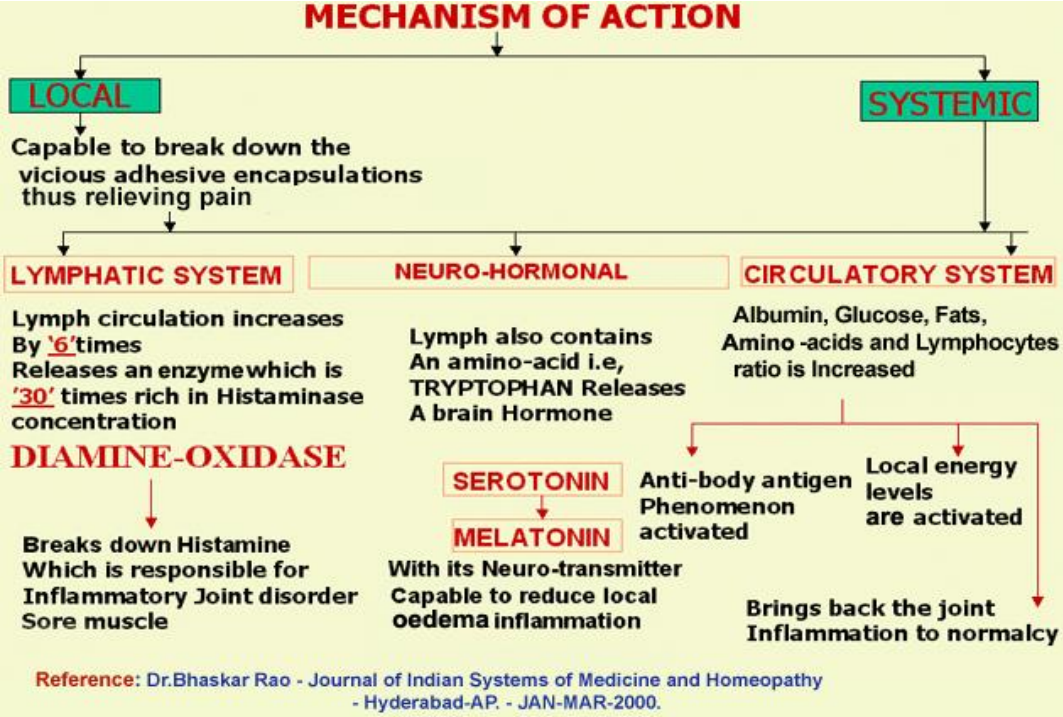
Basti considered as ardhachikitsa is the main line of treatment for vatavyadhi .The enteric nervous system mainly present in the gut is a branch of peripheral nervous system, with the neurons in the enteric nervous system is almost equal to the number in the entire spinal cord. Basti acts on enteric nervous system and its neurotransmitter acetylcholine, norepinephrine, serotonin, dopamine, cholecystokinin by which noxious stimuliarenot transferred .Locally vranabasti does vranaropana ,shothaharanaandsholashaman.Alsovamana and virechana does dosha shaman in body and used for chronic pain managment.Locally in panchakarmawe can use different procedure like kavala,gandusha,karnpurana which are also indicated for local pain relief in urdhawajatrugataroga depending on the drugs which are selected.

In ayurvedic classicsraktmokshana,agnikarma like parasurgicalprocedure are explained which also used for acute pain management.

Raktamokshan is used to draw dushitarakta by different methods. During explanation of samarakta lakshana *AcharyaSushruta* told there is relief of pain by raktmokashan.[6]Sthanik dosha vridhi i.e. vata and rakta are mainly subsided. It relieves obstruction in the sira,snayuetc.Additional to this it relievesavarana of doshasand decreases inflammation, ischemia and obstruction by which pain is taken care of.

Agnikarma is nothing but heat therapy/cauterization .In this we use heat locally in different ways .Agnikarma acts locally as well as systemically and reduces

inflammatory modulators plus it acts on pain transmission by pain gate theory and subsides pain.




Some research work conducted on yoga concludes that yoga practice leads to enhancement of parasympathetic activities and provides stability of Autonomous nervous system also clinical trialssuggests good pain relief by yoga on low back ache .May be by yoga prana circulation in is increase in nadi and by this person becomes physiologically strong so painthreshold capacity increases.Satavavajaychikitsaincreases confidence level and controlling capacity of mind by which it gives strength to the body to tolerate maximum pain.

**Discussion/conclusion**

Pain is associated with a wide range of injury and disease, and is sometimes the disease itself. Some conditions may have pain and associated symptoms arising from a discrete cause, such as postoperative pain or pain associated with a malignancy, or may

be conditions in which pain constitutes the primary problem, such as neuropathic pain or headache.

While acute pain is a normal sensation triggered in the nervous system to alert you to possible injury and the need to take care of yourself, chronic pain is different. Chronic pain persists. Pain signals keep firing in the nervous system for weeks, months, even years. There may have been an initial mishap as in; sprained back, serious infection, or there may be an on-going cause of pain which is evident in arthritis, cancer, ear infection, but some people suffer chronic pain in the absence of any past injury or evidence of body damage. Many chronic pain conditions affect older adults. Common chronic pain complaints include headache, low back pain, and cancer pain, and arthritis pain, neurogenic pain resulting from damage to the peripheral nerves or to the central nervous system itself.

Millions suffer from acute or chronic pain every year and the effects of pain extracts a tremendous cost on our country in health care costs, rehabilitation and lost worker productivity, as well as the emotional and financial burden it places on patients and their families. The costs of unrelieved pain can result in longer hospital stays, increased rates of re-hospitalization, increased outpatient visits, and decreased ability to function fully leading to lost income and insurance coverage. As such, patient's unrelieved chronic pain problems often result in an inability to work and maintain health insurance. According to a recent Institute of Medicine Report: *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*, pain is a significant public health problem that costs society at least $560-$635 billion annually, an amount equal to about $2,000.00 for everyone living in the U.S.

The Indian medical science has detail explanation about the cause, nature, type it’s Pathogenesis. This medical science has also explained prognosis of pain. The management principals referred in Ancient Indian literature are well excepted and found effective. As these procedures have minimal side effects with low cost, so these treatment modalities are well practiced by Ayurveda physicians. The integration of both the therapies will be a boon to mankind.

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# An Ayurvedic Vision Towards The Dyslipidemia & It's Hepatobiliary Complication

*Rashmi Gupta **G. D. Gupta ***L. Singh

**Abstract: -** Alteration in serum lipid profile from its normal range is considered as dyslipidemia. It is the main responsible factor for multiple diseases such as obesity, Cholicystitis, Cholilythiasis, IHD, Cerebral infarct, peripheral vascular disease, Diabetes mellitus, Hypertension, Intermittent claudicating, impotence etc.

All the above diseases are reflection of its complication, which alters the whole daily life activity along with life span. This chapter has been explained in Ayurveda as Atisthaulya, which is the resultant product of Dyslipidemia. Atisthaulya has been given great emphasis in context of Asta nindita purush. Ayurveda has fully explained its etiology and complications with their multidirectional management.

Now Dyslipidemia is explained as metabolic syndrome, which includes five components- Obesity, Elevated triglycerides, Reduced HDL, Hypertension, Impaired fasting glucose. It has also been categorized under three category- lower, moderate, high-risk states. By use of Ayurvedic Ahar, Vihar (Theraptic life style change) and medicine, we can control metabolic syndrome up to some extent.

**Keyword**- Dyslipidemia, Atisthulya, Asthaninditapurush, Metabolic syndrome, Theraptic life style change.

**Introduction: -** Dyslipidemia is defined as abnormal plasma lipid status. Elevated total Cholesterol, Low-density lipid protein (LDL) cholesterol, lipoprotein (a), triglyceride with Low level of High-density lipoprotein (HDL) cholesterol and a preponderance of small, dense LDL particle. These abnormalities can be found alone or in the combination.

In case of Dyslipidemia Serum LDL level is most important fact for whole pathology and risk faster (IHD)[1].

Some condition which are playing most important role for elevation of Serum LDL levels – Cigarette smoking

- Hypertension (BP > 140/90 mmHg or any Anti hypertensive medication)
- Low HDL cholesterol (<40mg/dl)
- Family history of CHD
- Age (men> 45yr, women> 55yr).

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Ayurveda has given more emphasis about the etiological factor of Atisthuly, which is explained, in term of dietic and behavior, which produces a significant role in alteration of total serum Cholesterol level.

In a study it is found that, total cholesterol levels for hunter-gatherers, wild primates, and wild mammals generally range from 70-140 mg/dl (LDL cholesterol 35-70 mg/dl). In modern westernized humans, mean total cholesterol levels (208 mg/dl; LDL cholesterol 130 mg/dl) are almost twice these normal values, and atherosclerosis is present in up to 50 % of individuals by age 50.[2] In contrast, evidence from hunter gatherer populations following their indigenous lifestyle indicate average total cholesterol levels of 100-150 mg/dl (LDL cholesterol l50-70 mg/dl) and no evidence for atherosclerosis, even in individuals living into thee eight decade of life[3].

Identification of Dyslipidemia

**Lipoprotein Analysis**. A fasting lipoprotein profile, consisting of total cholesterol, LDL cholesterol, HDL cholesterol, and triglyceride should be obtained in all adults over age 20 and repeated at least once every 5 years. Blood samples should be drawn after a 9-12 hour fast while the person is in steady state-absence of active weight loss, acute illness, recent trauma, surgery, pregnancy, or recent change in diet. To ensure reliable measurements, blood samples should be sent to a laboratory recognized by an established standardization program.

**B. Exclusion of Secondary causes**. Once a dyslipidemia is identified, a history, physical examination, and basic laboratory tests are performed to screen for secondary causes of dyslipidemia is identified, ncluding diet, medications, alcohol abuse, diabetes, hypothyroidism, nephritic syndrome, chronic renal failure, and obstructive live disease[4].

C**. Identification of genetic dyslipidemia[5]**. If severe hypercholesterolemia is present (total cholesterol>300mg/dL) or a genetic disorder is discovered, a family history and measurement of cholesterol in other family members are needed.

Heterozygous familial hypercholesterolemia (FH)
Homozygous familial hypercholesterolemia (FH)
Familial defective apo B-100
Polygenic hypercholesterolemia
Familial combined hyperlipidemia
Type III hyperlipidemia (familial dysbetalipoproteinemia)
Familial hyper triglyceridemia
Familial low HDL cholesterol (hypoalphalipoproteinemia)
Familial chylomicronemia

Due to multi direction pathogenesis and complication of dyslipidemia it is explained as metabolic syndrome, which is comprise of five conditions as per below[6].

Abnormal obesity (waist circumference); men>102cm (40) women>80cm (35 inch).
Elevated triglycerides > 150mg/dl or drug treatment for elevated triglycerides.
Reduced HDL cholesterol; men<40mg/dl, women <50mg/dl or drug treatment for reduction of HDL cholesterol.
Hypertension;>130/85 mmHg or drug treatment for hypertension

1. Impaired fasting glucose> 100mg/dl or drug treatments for elevated glucose.

**Complication of metabolic syndrome (obesity):** Cardiovascular disease,Atherosclerosis,Hypertension,Pulmonary disease,Diabetes Mellitus (Adult onset),Fatty liver,Cholelithiasis,Arthritis,Osteoarthritis (specially of the hips),Gout,Varicose veins and thrombo-embolism,Hernia-ventral and diaphragmatic,Endometrial Carcinoma,Toxemia of pregnancy. Ayurveda has also approach in multiple directions in context of Atisthasala and explained etiology, pathology, complication and treatment.

**Etiology[8]-**

**Deit-** Guru, Madhur, Sheet, Snigha, , Pichhila, Amla and Shlesma Bahulya ahar
**Dietic behaviour-** Atibhojana, Adhyasana
**Specific diet-** Gorasa, Pistannam, Navannam, Navamadhya, Gandika vikar
**Physical activity**- Avyavaya, Avyayam, Asyasukha, Shaiyyusukha, Divaswpna
**Psychelogical factor**- Acinta, Nityaharsa
**Genetic factor** – Beeja Dosh

**Complication of Atisthoulaya[9]**

Udara Roga, Bhagandar, Prameha,Urustambha, Pidika, Vidradhi, Kustha, Visarpa, Arsha, Atisar, Sleepad, Apaci, Vatavyadhi, Kamala.

## Management of Dyslipidemia:

Multiple cases of Dyslipidemia has been treated in S.S. hospital BHU, which are diagnosed during the treatment of its complication such as CVA, IHD, Hypertension, Diabetes mellitus, fatty liver disease etc.

**Drug-**

**Rasona Kshirapak[10]** – 20 pods of Rasona are crushed and boiled in 200ml milk up to 100ml. It is used two times in a day. Duration of treatment was varies on the value of lipid profile. After achieving normal value, It is continued in half dose once in a day as per prophylactic use.

**Diet[11]**-

**Cereals-** Wheat, Rice, maize, Barley and Millet.
**Pulses**- Green gram, Bean, Horse gram, lentil, Field pea, Black seeded dolichos and motha
**Vegetables-** Caulai, Vastika, Palak, Surana kand, Cangeri, Parwal, Karkotaka, Tinda, Haridra, Shijan, Methi Soya, Karela, Saljam, Kheera
**Oils-** Mustard, Sunflower.
**Drinks-** Takra, Lukewarm water and Madhoodaka
**Prohibitions:** Non-vegetarian food, Day sleep, Milk, Butter and Ghrita

| .**Food composition** | **Recommendation** |
|---|---|
| Total fat<br>Saturated fat<br>polyunsaturated fat<br>Monounsaturated fat | 25-35% of total calories<br><7% of total calories<br>Up to 10% of total calories<br>Up to 20% of total calories |
| Carbohydrates | 50-60% of total calories |

| | |
|---|---|
| Fiber | 20-30 gm/d |
| Cholesterol | <200mg/d |
| Total calories | Sufficient to achieve or maintain desirable body weight |

**Yogasans-**

Bhujangasan, Shalabhasan, Pavanmuktasan, Surya Namaskarasan Dhanurasan, Pascimocttasan, Matsendrasan, Savasan[13].

**Conclusion-** western medicine has gained upper hand in the management of infectious diseases, but failed to achieve similar success in chronic, incurable disease and various metabolic condition. Adoption of Ayurvedic formulation in the daily routine followed by modification of diet and life style; help considerable to overcome the problem. So we have to adopt our ancient dietic schedule, which is Sufficient to achieve or maintain desirable body weight, along with ancient life style (physical and psychological) and yogaasan.

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## *Effect of Ghrit kumari Kshar sutra in the management of Bhagandara*

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***Abstract***- *Bhagandara* i.e. Fistula in ano is one of the *Krichh-sadhya Vyadhi* described by *Sushruta* which is difficult regarding its management. Fistula in Ano is disease of Ano rectum which characterized in humans by single or multiple tracts with purulent discharge in the perianal region.The disease has been described in *Sushrut Samhita* and other *Samhitas.* Though it is one of the *Ashta-mahagada Vyadhi* the medical profession therefore has always been on the alert to devise and provide procedures and methods surgical or otherwise which could control disease effectively.The present study has been carried out to study the "Effect of *Ghrit kumariKsharsutra* in the management of *Bhagandara"* was aimed to observe the efficacy of trial drug in *Bhagandara*.The clinical study was conducted on 30 patients selected randomly and taken in one group for the clinical trial. Patients were treated with Ghrit kumari *Ksharasutra* with local application of *fresh Ghrit kumari pulp gauze*. The clinical assessment was done on the basis of grading criteria with specific symptology of *Bhagandara* like *Pain*, *Itching*, *Discharge etc* and length of thread obtained at every sitting. Then mean scores levels of these symptoms before and after the treatment where subject for ***Student Paired't' test*** for statistical analysis. The results were statistically and clinically highly significant not only to cure but also to prevent recurrence of the Bhagandara.

**Key words**: Bhagandara, Fistula in ano, Ghrit kumari, Kshar-sutra.

**Introduction** –

*Bhagandara* (fistula-in-ano) is one of the oldest diseases known to the medical science. Fistula in ano at modern parlance is a common anorectal condition prevalent in the population worldwide and its prevalence is second highest after Arsha (haemorrhoids). As per the guidelines propounded, the principal mode of treatment for *Bhagandara*according to Sushruta is *Shastra karma*. Thereafter, extensive research by our learned teachers, a reference in *NADI VRANA Chikitsa by* Sushruta brought forward a hidden glow of light in the form of **Kshar Sutra management** in the Bhagandara.

Kshar sutra therapy is being widely used all over India ever since the results of Professor Deshpande's work were published in the American Journal of Proctology in 1976.

However, a well-controlled, comparative trial of this method was still pending and this was eventually carried out by the Indian Council of Medical Research in 1991. During the course of this trial a set of patients suffering from fistula in-ano were divided into two groups. The first group was treated using standard surgical procedures and the second group was treated with the medicated thread (*Kshara Sutra*). The outcome of this trial clearly showed that although the initial healing time with Kshar Sutra was longer as compared to the surgical method, the results obtained by it were more long-lasting.

The results of this test were published in the Indian Journal of Medical Research and were widely hailed as a major breakthrough in the field of alternative medicine. This method of treatment is also of special significance for developing countries as it is less expensive as compared to the surgical method. It also brings to the forefront the fact that treatments prescribed in ancient medical texts may very effectively be adopted undoubtedly.

So far many researches are carried out in different institutions. Previous research works had been conducted on Snuhi Kshar Sutra, Madhu Kshara Sutra, Palasha Kshara Sutra, Guggulu Kshara Sutra, Udumbar Ksheera Sutra, Papaya Ksheera Sutra, Arka-ksheer Kshar Sutra etc., for the management of Bhagandara.

The standard Snuhi Apamarga Kshara Sutra is prepared by repeated 21 coatings of Snuhi Ksheera, Apamarga Kshara and Haridra choorn. During and after application of Snuhi Apamarga Kshara Sutra few patients sometimes complain of moderate to severe burning type of pain initially, Difficult availability throughout year, Lack of preservative facility and Allergic reaction in some patients are also noted by Snuhi Ksheer.

***Considering these aspects, Shalya Tantra (P.G.) department of our institute has chosen an alternative drug Ghrit Kumari (Aloe Vera) to be used in place of Snuhi ksheer for preparation of Kshar Sutra. The present research work was planned with the aim out a useful and easy remedy for the patients of Bhagandara.***

**Material and Method** – This is a prospective study of 30 patients operated (kshar sutra ligation) for Bhagandara, the patients are 20 to 70 years of either sex. Information about mode of onset, duration of illness and any previous treatment for intestinal disease like tuberculosis, crohn's disease and ulcerative colitis were collected. Drug was prepared in RGPGACH, Haridwar Composed of **Ghrit kumari pulp**, Apamarga kshar and Haridra churna based Kshar sutra.

**Drug Review -** Sushruta has emphasized on the operative procedurealong with local treatment in the management of Bhagandara and he has given various preparations for the local treatment in various forms. Although the Kshar sutra describes in the chapter "NADI-VRANA Chikitsadhyay", however nowadays it is being used prominently in treatment of Bhagandara.The ingredients of Ghrit kumari kshar sutra are:-

1) Ghrit kumari fresh pulp 2) Apamarga Kshar3) Haridra Churna 4) Surgical linen thread no. 20 the detail description of all above mentioned drugs are given below:

**Preparation of Kshar-sutra:**11 coatings of Ghrit kumari pulp, 7 coating of Apamarga Kshar with Ghrit kumari pulp, and 3 coatings of Haridra with Ghrit kumari pulp should be given.Thread: surgical No. 20 which was proved by the best by previous study. The tensile strength was maintained properly after passing through the process of coatings.

**Procedure:** Procedure done according to standard P.J.Deshpande procedure.

**Properties of Ksharsutra:**The cutting of the track is due to the pressure necrosis of the tissue. It can be achieved by tying any type of thread. The Kshara helps in cleaning debris from track, sterilization of track, remove fibrosis. Kshar along with Ghrit kumari which is a good healer

itself helps in granulation and it results in quick and good healing of the wound. The slow cutting and healing results in nil recurrence and minimal sphincter mechanism disturbances.

**Materials and Methods**:

**Place of Study**: IPD and OPD of P.G. Dept. Of Shalya Tantra, Rishikul Govt. P.G. Ayurvedic college and Hospital, Haridwar

**Patients:** The patient of Bhagandaraattending the IPD and OPD of Shalya Tantra Department were the main clinical subject.Total numbers of patients were 30, which was taken in one group.

**Exclusive Criteria:**Patient with incomplete data was excluded from study. Patients suffering from active pulmonary or abdominal tuberculosis along with peri-anal Fistula were not operated and thus not included in this study. Patient also having Chronic or acute ulcerative colitis, Intestinal and pelvic malignancies, Venereal diseases & HIV, Strictures of urethra causing urethral sinuses, Crohn's disease are excluded from study.

**Inclusive Criteria:**All type of Fistula in ano, Age- 20-70 yrs. of age group, Sex- both male & female and Patient belonging to all socioeconomic group.

**Investigations:** Prior to Ksharsutra therapy following investigations were carried out.

1) Haematological- TLC, DLC, Hb%, ESR, Blood Urea, Serum creatinine, Blood Sugar.
2) Routine urine examination.
3) Pus for Culture and Sensitivity.
4) Proctoscopy.
5) Colonoscopy (wherever needed).
6) Fistulogram (In selected cases).

## ASSESSMENT CRITERIA

| Subjective Parameters | Π. Objective Parameter |
|---|---|
| Pain | ⇒ Unit cutting time (U.C.T.) |
| Burning sensation | {In Days/Cm.} |
| Itching | |
| Discharge | |
| Inflammation | |

**Pre-operative procedure** –After explaining whole procedure Written informed consent was taken from patient, part prepared (by hair removed and cleaning with anti-septic lotion) , Inj. Xylocaine sensitivity test was done and Inj. Tetanus toxoid 0.5 ml i/m stat given. Preparation of operation theatre & sterilization of Instruments were done before hand. Patient was kept in lithotomy position. Part was cleaned and painted with anti-septic lotion and draped with sterile abdominal draw sheet.

**Operative procedure** – Procedure was performed by the first author under observation. Generally Local anesthesia (Xylocaine 2% and 5% ointment) was used and it was applied after keeping the patient in lithotomy position. When the patient was assured, gloved index finger was gently introduced into the rectum and a suitable maleable probe was passed through the external opening of the fistula. The probe was forwarded along the path of least resistance to

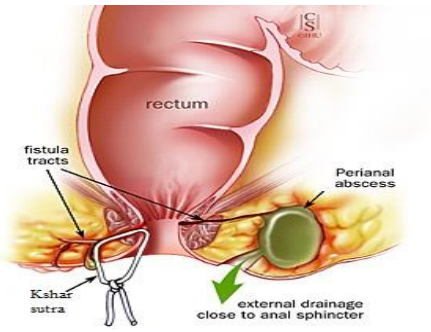



**Diagram showing kshar sutra in situ**

reach into the lumen of anal canal through the internal opening, guided by the finger of the other hand inserted in to the rectum and the tip of probe was finally directed to come out of the anal orifice. Then a suitable length of *Barbers thread no. 20*was taken and threaded into the eye of the probe. Thereafter, the probe was pulled out through the anal orifice, to leave the Barbers threadin situ i.e. in the fistulous tract. The two ends of the plain threadwere tied together outside the anal canal. After this a gauze piece (surgical pad) soaked with *Ghrit kumari pulp* was applied to the anal region and tied with the help of T-bandage and patient was shifted to the post-operative ward.

**Post-operative Measures** –Patient was kept in Shalya ward under observation for few hours. The patients were advised to take rest for some time and then allowed to go back for their routine work. All patients were advised to take Hot sitz bath twice in a day followed by Tb. Triphala Guggulu 2 bid orally.

**Change of Kshara Sutra:**

Changing the Thread (Rail – Road Method):

Wound was examined weekly and the Kshar sutra tightened as necessary till it gradually healed the fistulous tract. After one week, the *Kshara Sutra* was changed with a new thread bythe Rail-road method. The measurement of the old thread was recorded finally to assess the progress.

**Adjuvant Therapy –**

Ropan Sanskar with GHRIT-KUMARI PULP.

Triphala Guggulu. (2BD/1BD depending on the patient)

Hot Sitz Bath twice in a day

**Duration of the Study –**

It depends on the length of fistulous tract & rate of healing of Fistulous track. Total 6 month of duration was taken for study.

**Post-operative course and Follow up –**

The patients were allowed to eat their regular diet from the first post-operative day. All patients were discharged on the same operative day. After cutting of the Fistulous tract the patients will be ask to come to the outpatient department weekly once for one month, and monthly once for two months. Neither mortality nor morbidity developed. They were be examined, assessed and recorded in our proforma. No recurrence observed till now.

**Observation:**

Distribution of Patients:

Total 30 patients were registered for this study; all 30 patients completed the full course of treatment.

**Demographic Data:**

Age - Maximum patients i.e. 50% patients were found in the age group of 31-50 years.Sex - In analysis only 1 female patient (03.33%) were found during study and rest 29 (i.e. 96.67%) were male.Religion - Maximum cases i.e. 26 patients (86.66%) were found of Hindu religion, it may be because of study was conducted in Hindu prone population.Marital status - In analysis 7 patient (23.33%) were found unmarried during study and rest 27 (i.e. 96.67%) married persons.

**Residential Habitat -** Cases were analyzed and 73.33% patients were reported from urban area.**Socio-economic Status -** Analysis of socio-economic status of 30 cases of Bhagandara showed that the majority of the patients belonged to middle and lower middle class i.e. 33.33% and 23.33% respectively.**Occupation -** Incidence of occupational status revealed that 40% each patients were service men.**Nature of work -** Analysis of nature of work in 30 cases of Bhagandara showed that majority of patients (53.33%) was doing strenuous work.**Diet -** It was observed that the 60% patients were consuming vegetarian diet whereas, 40% patients were on mixed diet.**Nature of Koshtha -** The maximum numbers of patients were found with Madhyam Koshtha (56.66%).**Nature of Bowel habit -** The maximum numbers i.e. 21 patients (70%) were found with constipation, 3 patients (10%) have mucous discharge with feces and 6 patients with normal bowel habit were found (20%).**History of Addiction –** Maximum 60% patients were smokers whereas 20% patients were found non-addicted to any of these habits.**Family history -** In this present study only 1 patient (3.33%) was found with family history of Bhagandara, rest 29 patient (96.67%) had no family history.**Sharira Prakriti -** This study revealed that maximum 40% patients belonged to Vata pittaja Prakriti.

**Types of Bhagandara -** Out of 30 cases, maximum numbers of patients i.e. 43.33% each were reported under Parisravi Bhagandara, 40% were of Ushtra-greeva, 10% of Shatponak Bhagandara, 6.67% of Shambukavarta Bhagandara and no case found of Unmargi Bhagandara.

**Types of Fistula in Ano as per contemporary medicine as per Milligan Morgan's classification -** During diagnosis of 30 patients of Fistula-in-ano, the maximum 13 patients (43.33%) were observed under the Low level type, 36.67% (11 patients) under High level, 10% (3 patients) under in both Sub mucous and Sub cutaneous group were observed, none case found in Ano rectal group.

**Chronicity -** Out of 30 patients, it was observed that 50% patients were afflicted from less than 1 year. 30% patients were suffering from 1-2 years of duration and 20% patients were suffering from more than 2 years.**Associated Diseases -** Out of 30 cases, 23.33% patients were reported having associated diseases. Among those 10% patients were suffering from diabetes mellitus, 10% patients were found suffering from hypertension and 03.03% patients were reported to have ulcerative colitis.**Incidence of associated lesion -** In analysis 3 patients (10%) were found in each group of haemorrhoids and fissure & sentinel tag. 6 patients (20%) were found with peri anal abscess rest 18 patients (60%) having no associated lesion.**Previous Surgery -** 10 out of 30 cases i.e. 33.33% patients were reported as operated cases and rest of 20 cases i.e. 66.67% patients were non-operated previously.

**Number of Operations -** 10 Recurrent operated cases (30% patients) were further analyzed. Among all recurrent cases, 60% patients had undergone the operation only once, 40% patients were operated more than one times. ***Note –** They were operated in some other surgical centers.**Anaesthesia used for primary threading -**

Out of 30 patients, for maximum cases i.e. 28 cases (93.33%) primary threading was done under local anaesthesia, whereas 02 cases (06.67%) were conducted under spinal anaesthesia. ***Note –** Only ***Xylocaine jelly was usedin local anaesthesia***, infiltration by any injectable local anaesthesia was not used in any case.

**Number of external openings -** Analysis of 30 cases was done in terms of number of external fistulous openings. 26 cases (86.67%) were having single external fistulous opening, while 03 cases (10%) were having two openings and 01cases (03.33%) were having three or more than three openings.**Clockwise Position of Fistulous opening -** Analysis shows that commonest external opening in 07 cases (16.67%) of Bhagandara in these cases were found in 7 'O' clock position and no case was found in 10 & 12 'O' clock position.**Quadrant-wise Distribution of External openings -** Analysis was done on 30 cases in term of Quadrant-wise distribution of external openings. In maximum 11 cases (36.67%) external opening found in left upper quadrant.

**Distribution of External openings in upper and lower half (divided by Transverse anal line) -** Out of 30 cases external opening was found in upper half in 18 patients (60%) and in 12 patients (40%) it was found in lower half.**Initial length of the tract -** The maximum cases i.e. 11 cases (36.67%) were having initial length of the thread, (changed for the first time) between 0 to 5 cm, 10 cases (33.33%) were having initial length in the range of 5.1-10 cm and 9 cases (30%) in the range of more than 10 cm.**Types of fistulous tract on probing -** Maximum number of cases i.e. 18 cases (60 %) were recorded having straight tract, 6 cases (20%) were recorded having radial tract and 6 cases (20%) were noted having curved tract.

**Incidence Of Clinical Features Of Bhagandara In The Patients (Before Treatment):**

**Incidence of Pain in study before the treatment -** In analysis of Pain table shows 13 patients (43.34%) were found in grade-4, 1 patient (3.33%) was found in grade-1 & grade-0, 6 patients (20%) were found in grade-2 and 9 patients (30%) were found in grade-3 before treatment.

**Incidence of Burning sensation in study before the treatment -** 14 cases (46.67 %) were recorded having grade-3, 10 cases (33.33%) were recorded in grade-4 and 5 cases (16.67%) were recorded in grade-2, 1 case (3.33%) in grade-1 whereas no case found in grade-0 before treatment in analysis of symptom Burning sensation.

**Incidence of Itching in study before the treatment -** In analysis maximum number of cases i.e. 19 cases (63.33 %) were recorded having grade-3, 6 cases (20%) were recorded in grade-4and 3 cases (10%) were recorded in grade-1 and 2 cases (63.33%) in grade-2 whereas no case found in grade-0 before treatment of symptom Itching.

**Incidence of Discharge in study before the treatment -** Maximum number of cases i.e. 14 cases (46.67 %) were recorded having grade-4, 13 cases (43.33%) were recorded in grade-3and 3 cases (10%) were recorded in grade-2 whereas no case found in grade-1 & grade-0 before treatment in analysis of symptom Discharge.

**Incidence of Inflammation in study before the treatment** - In analysis of Inflammation before treatment table shows 14 patients (46.67%) were found in grade-3, 1 patient (3.33%) was found in grade-1, 10 patients (33.33%) were found in grade-4, 5 patients (16.67%) were found in grade-2 and no patient recorded in grade-0.

**Result -** 30 patients were selected in the present study.The efficacy of the therapy was adjudging on Subjective & Objective parameter and the result were derived after execution of statistical methodology. The effect of therapy has been presented as follows.

Statistical observation: Statistical technique is adopted foe Data analysis; Paired t-test was applied using SPSS Software.

**Effect of therapy on subjective parameter** - The sign & symptom of disease, complained by patients were compiled before and after treatment and were assessed on the basis of scoring given to them.The clinical observations like pain, burning sensation, itching, discharge; inflammation and Unit Cutting Time were analyzed and described here under the separate headings.

**Statistical analysis -**

| Para-meters | Mean | | X | % Relief | S. D. | S.E. | t-value | Df | p-value | Statistical analysis |
|---|---|---|---|---|---|---|---|---|---|---|
| | B.T. | A. T. | | | | | | | | |
| **Pain** | 3.067 | 0 | 3.067 | 100 | 1.05 | 0.19 | 16.02 | 29 | < 0.001 | HS |
| **Burning Sensation** | 3.1 | 0 | 3.1 | 100 | 0.80 | 0.15 | 21.14 | 29 | < 0.001 | HS |
| **Itching** | 2.967 | 0 | 2.967 | 100 | 0.85 | 0.155 | 19.11 | 29 | < 0.001 | HS |
| **Discharge** | 3.367 | 0 | 3.367 | 100 | 0.668 | 0.122 | 0.122 | 29 | < 0.001 | HS |
| **Inflammation** | 3.1 | 0 | 3.1 | 100 | 0.80 | 0.146 | 21.14 | 29 | < 0.001 | HS |

## Effect of therapy on U.C.T

### U.C.T. according to types of Fistula-in-ano

**Table: U.C.T. according to types of Fistula-in-ano**

| Types of Fistula-in-ano | U.C.T. (in day/cm.) |
|---|---|
| **Sub-mucus** | 3.8 |
| **Sub-cutaneous** | 7.4 |
| **Low anal** | 7.09 |
| **High anal** | 7.7 |
| **Mean** | **6.5** |

In analysis it shows that minimum U.C.T. 3.8 days/cm. in Sub-mucus and maximum U.C.T. 7.7 days/cm. was found in High anal fistula-in-ano.Mean U.C.T. is 6.5 days/cm.

**U.C.T. according to types of Bhagandara**

**Table: U.C.T. according to types of Bhagandara**

| Types of Bhagandara | U.C.T. (in days/cm.) |
|---|---|
| **Shatponak** | 8.28 |
| **Ushtragreev** | 7.82 |
| **Parisravi** | 5.58 |
| **Shambukavarta** | 8.8 |
| **Unmargi** | 0 |
| **Mean** | **6.09** |

The above analysis shows that minimum U.C.T. 5.58 day/cm. in Parisravi Bhagandara whereas maximum U.C.T. 8.8 days/cm. was found in Shambukavarta Bhagandara. Mean U.C.T. is 6.09 days/cm.

❖ **Result of Recurrence of case**

* In none case recurrence of the disease ever reported during study period.

**Table: Summarized result after completion of treatment**

| Parameter | % Relief | t-value | p-value | Statistical result |
|---|---|---|---|---|
| **Pain** | 100 | 16.02 | 0.001 | HS |
| **Burning sensation** | 100 | 21.14 | 0.001 | HS |
| **Itching** | 100 | 19.11 | 0.001 | HS |
| **Discharge** | 100 | 27.57 | 0.001 | HS |
| **Inflammation** | 100 | 21.14 | 0.001 | HS |
| **U.C.T.** | 100 | 20.08 | 0.001 | HS |

**Table: Result of therapy**

| Result of therapy | No. of patients | Percentage |
|---|---|---|
| **Arogya (Cured)** | **30** | **100%** |
| **Anarogya (Unchanged)** | **0** | **0%** |

**Overall Effect of Therapy:**

The duration of the treatment was till the *Ghrit kumari Kshar sutra* gets cut through the tract completely. Total duration of study was taken SIX MONTHS. Inall the patients had complete cut through of the fistulous tract.The shortest duration of treatment was in a patient where the tract was 2.5 cm and 13 days were taken for the cut through of the tract.The longest duration of

treatment was in a patient who had multiple tracts and it took 148 days for the complete cut through of the 14 cm fistulous tract.30 patients completed their follow up period and no patient was reported with recurrence.Neither recurrence nor any side effects were reported during study period.

**Discussion** –

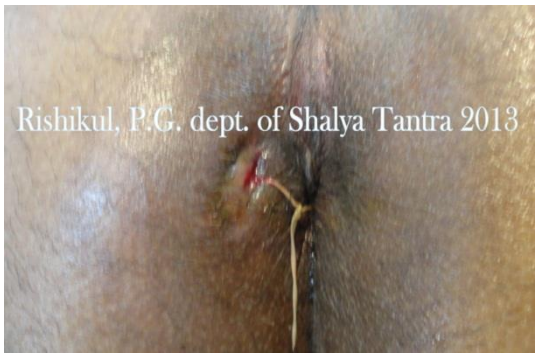
A vast majority of peri-anal fistula belongs to low variety i.e. below ano-rectal ring. They can be easily treated by Kshar Sutra therapy – A technique without division ofanal sphincter muscle and thus without danger of permanent incontinence. This ***Kshara sutra*** therapy is a very ***effectual curative procedure*** and can be carried out with minimal requirements. The ***expenses*** required for this modality are ***quite low*** and there is ***no need*** to ***hospitalize*** the patient for longer duration, which is a ***boonto the sufferer*** of this notorious disease 'Bhagandara'. On the contrary, Modern surgical management results in painful post-operative surgical dressings for longer duration, may cause loss of natural cushion in gluteal region, may damage anal sphincters & deform the shape of anal opening and often the widespread open wound refuses to heal spontaneously. Besides, ***higher recurrence rate*** after Fistulectomy also creates a psychological trauma may further worsen the condition of the disease and the problem of the patients remains unanswered.

Inadequate treatment by peripheral hospitals seems to be the most probable cause of high incidence of recurrent Fistula. Conventional laying open technique in high peri-anal Fistula may involve sacrifices part or whole of the sphincter muscle impairing continence. It is quite obvious that the more the extent of anal muscle division, the greater the degree of anal incontinence. Fistula surgery can be complicated by incontinence. In this study, **No patient develops incontinence.**

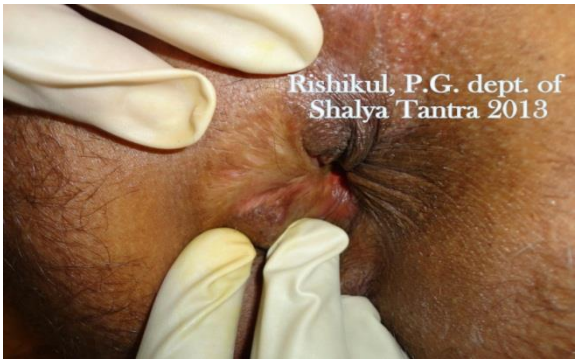
**Conclusion and recommendation** –

*Kshara Sutra* therapy is a radical cure in the treatment of Bhagandara without complications and recurrence. Administration of Triphala Guggulu and Ropan karma with Ghrit-Kumari pulp showed good result in the reduction of pain scores in the post-operative period and successive change of the sutra.

To achieve the goals of treatment it is necessary to practice Kshar sutra therapy by surgeons having knowledge and experience. Preparation of the patients for application of Kshar Sutra is an important part of the procedure. The surgical interventions like Fistulotomy, Fistulectomy etc. proved fruitless due to high recurrence rate and post-operative complications. Under these circumstances Kshar Sutra therapy offers a good ray of hope. Its gradual but sustained Ksharan (chemical) action removed the debris from the site of Bhagandara but it also helps in formation in healthy granulation tissues, there by inducing a long healing pattern in the depth of the tissue. Kshar Sutra also dissolves the tough fibrous tissue and ultimately drains creating a healthy base for healing. Proper pre-operative evaluation, light local anesthesia, gentle probing to achieve almost blood-less field in all cases is key to success.




**Ghrit kumari kshar sutra applied in patient**




**After follow up of 1 month**

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Concept of Atisara (Diarrhea) in Children and its Management

***Upadhyay P S**

## Abstract:

Diarrhea is both preventable and treatable. Diarrheal disease kills 1.5 million children every year. Globally, there are about two billion cases of diarrheal disease every year[1]. Diarrheal disease mainly affects children under two years old. Diarrhea is a leading cause of malnutrition in children under five years old[1].

In India acute diarrhealdisease accountfor about 13% of deaths in under 5 years age group. In the year 2009, about 11.2 million cases with 1762 death were reported in India[2].In the world, about 9 million under-five childrendie every year. After pneumonia, diarrhea is the second common cause of death in children. Excluding neonatalcomplications, pneumonia and diarrhea put togethercauses the death of 40% of under-five childrenin the world every year (WHO-UNICEF,2009)

**Key Wards:** Diarrhea, malnutrition, intestinal mucosa, dehydration.

***Assistant Professor, Kaumarbhritya/Balroga Deptt., Faculty of Ayurveda, IMS BHU Varanasi,**

## Introduction:

Literally the term Atisara is made of two words meaning -

ATI = Excessive

SARA = Passing of liquid/watery

This means excessive flow of watery stool through anus

The description of Atisara is available in each text book of Brihatrayi. (Ch,Chi -19) (Su.Utt-3), (A.H.Ni-8) and (A.H.Chi-9).Sushruta (Utt-40/3-5) and Vagbhatta (A.H.utt-9/1-3) both have mentioned that Krimi is also a causative factor for Atisara.

**xqnsu cgqnzOklj.ke~ vfrlkje~A**

Dalhanain commentary on SushrutaSamhita stated that passing of watery stools in excessive quantity is characterized asAtisara. In modern medicine Atisara is clinically correlated with diarrhea.

The term diarrhea is made of two Greek words –

DiaandRhein.

Dia means -Through

Rhein means -To flow

Diarrhea is defined the passage of watery stool at least three time in 24 hour. However, with change in consistency of stool is more important than frequency.

### Age and Sex wise distribution :

Peak incidence occurs in infants under two to three years of age,especially under one year, which account for about half of the patients[3]. Boys had a higher incidence andmore importantly a longer duration of the episodes of diarrhea than girls[4].

# Concept of Atisara (Diarrhea) in Children and its Management

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***Assistant Professor, Kaumarbhritya/Balroga Deptt., Faculty of Ayurveda, IMS BHU Varanasi,**

Types of Atisar–Depending on etiology and clinical features in different Ayurvedictext,theAtisar is classified as-

**,dSd'k% loZ'kPJkfinks'kS% 'kksdsukU;% 'k'BvkesupksDr% [Su.ut.40/6]**

In Charak Samhita[5] Chikitsa-19/3, Ashtanga Hridaya[6]Nidan-8 and Ashtanga Samgraha[7]Nidan-8/2 have described six type of Atisara these are-VatajaAtisara,PittajaAtisaraKaphajaAtisara, SannipatajaAtisara, ShokajaAtisara andBhayajaAtisara But instead of these,Sushruta Samhita[8]Uttartantra40/7, Madhavnidana[9] Ni3/4, Yogratnakara[10]Atisara Prakaranam/6, andBhava Prakasha[11]Madhya-Khanda2/6, have also describe AamajaAtisara.

Clinical Types of Diarrhea As Per Medical Science:

On the basis of symptom diarrhea may be classified as follows-

1. *Acute watery Diarrhea:*Start suddenly and last several hour or days(<7days). The main danger is dehydration, electrolyte imbalanceand weight loss occurs if feeding is discontinued.
2. *Acute bloody Diarrhea (dysentery)*: Associated with gross blood in stool and maycause erosion of intestinalmucosa, sepsis and malnutrition .Other complication, is dehydration and electrolyte imbalance.
3. *Persistent Diarrhea:*Start as acute diarrhea and lasts 14 days or longer .The main danger is malnutrition, serious non-intestinal infection anddehydration may also occurs.
4. *Chronic Diarrhea:*Diarrhea of at least 2 weeks duration or 3 attack of diarrhea during the last 3 month, usually with specific condition like celiac diseases, tropical sprue, cystic fibrosis, congenital, biochemical or metabolic disorder, dehydration usually not occurs.
5. *Diarrhea with severe malnutrition (marasmus/ kwashiorkor) :*Carries risk of severe systemic infection, dehydration vitamin and mineral deficiency.

Osmotic diarrhea: occurs when too much water is drawn into the bowels. If a person drinks solutions with excessive sugar or excessive salt, these can draw water from the body into the bowel and cause osmotic diarrhea.

Secretary diarrhea: means there is an increase in the active secretion or there is an inhibition of absorption. There is little to no structural damage. The most common cause of this type of diarrhea is a cholera toxin that stimulates the secretion of anions, especially chlorideions, example is Enterotoxigenic infection like ETEC and Vibrio cholerae.

Toddlers' diarrhea: In pediatrics age group a condition defined as the presence of unresolved diarrhea with mild mal-absorption that persists after the resolution of acute gastroenteritis.

Intractable diarrhea of infancy: Intractable diarrhea of infancy may be defined as a syndrome of severe chronic diarrhea associated with malnutrition which is not easily resolved by conventional management.

Invasive diarrhea: In acute invasive diarrhea, the pathogen penetrates the epithelial cells of the intestinal mucosa.The invasive process often results in dysentery, accompanied by **cramps,** rectal burning, fever, andsometimes causes complicationslike bacteremia and toxic mega colon.

**Etiological factors of Atisara as per Ayurveda:**

| S.No. | AaharaJanya | Viharjanya and others |
|---|---|---|
| 1. | Guru (Heavy to digest), Atimatra (Excess quantity) | Madyatipana (Excessive intake of Alcoholic beverages),Shosha (Due to Tuberculosis) |
| 2. | Atisnigdha (Fatty or Greasy diet) | VishamaBhojana (Incompatible or improper cooked foods) |
| 3. | Atiruksha (Rough or dry diet) , KrishaShushkaMamsa (Unhygienic fat free meat intake) | Atijalakrida (Excessive swimming),Arsha (Due to Piles) |
| 4. | Atiushna (Pungent/Hot in nature) | Vega Vidharan (Suppression of natural urges) |
| 5. | Atidrava (Excessive liquid diets), Atiambupana (Excessive intake of water) | Ati Vyavaya (Excessive sexual indulgenece),KrimiDosha (Intestinal worm infestations) |
| 6. | Atisthula (compact diet) | Vishaprayoga (Intake of poisonous substances |
| 7. | DushitaJala (Polluted water) | Bhaya (Fright) and Shoka (Grief) |
| 8. | VirudhaAshana (Incompatible diets), Asatmya (Intolerable food | RituViparyaya (Sudden change in season), SnehadiShodhanaChikitsavibhrama (Improper use of Shodhana therapy) |

**Common Causative agents**

| Bacteria | Others | |
|---|---|---|
| 1. Vibrio cholarae<br>2. Escherichia coli<br>3. Pseudomonas<br>4. Compylobacter jejuni<br>4. C.coli<br>5. Cupsallensis<br>6. Non Typhoidal Salmonellae<br>7. Clostrudium difficille<br>8. Yersinia enterocolitica<br>9. Shigella species | Virus<br>1.Rotavirus<br>2.Adenovirus<br>3.Astovirus<br>4.Cytomegalovirus<br>5.Coronavirus<br>Helminths<br>1.Strongyloides stercordis<br>2Angiostongylus con straricensis<br>3.Schistosoma mansani<br>4.S.japonicum<br>5.Capillaria philipinesis | Protozoans<br><br>1Encephalitazoon Intestinales<br>2.Enterocytozoon intestinalls<br>3Crypysporidium hominis<br>4.Entamoeba Histolytica<br>5.Isospara belli<br>6.Cyclospara Coyetonenesis<br>7.Dientamoeba fragills<br>8.Blastocystis hominis |

**Prodromal Symptoms (PurvaRupa) :prodomal symptom is defiend as:**

àékfHkik;wndqf{krksnxk=kolknkfuylféjks/kk%
foV~laxvk/ekueFkkfoikdksHkfo';rL; iqj%ljkf.kA(Su.utt.40/8)

Pain in abdomen, peri umbilical region, kukshi, flank, associated with Numbness in limbs, Obstruction of vayu, Meconium plug and Indigestion.
Samprapti (PATHOGENESIS): Disease process as per Ayurvedic View:

Lka'kE;kika /kkrqjfXuaizo`)% 'kd`fUeJkssok;quk·/k% iz.kqUUk% A
ljR;rhookfrlkjarek~gqO;kZf/k 'kM~fo/karaonfUrA
,dSd'k% loZ'kPJkfinks'kS% 'kksdsukU;% 'k'BvkesupksDr% [Su.ut.40/6]

Increased fluid of body suppress the intestinal digestive Agni mix with the faeces and being propelled down by the *Vayu* flow over excessively, that serious disease is ,therefore, called *Atisara.*
Investigation

1. Complete Blood Count, Serum Electrolyte, Serum Urea and Serum Createnin .
2. Stool
   Microscopic: Ova/Cyst , parasite, bacteria, puscell, RBC.
   Macroscopic: Color, Consistency, Fluid content, Detection of reducing and non-reducing sugar, Fecal fat and Ph.
3. Culture and sensitivity of stool
4. Antiglandin antibodyand duodenal biopsy

Prevention:
Water, sanitation, and hygiene:

- Safe water drinking
- Sanitation: houseflies can transfer bacterial pathogens
- Hygiene: hand washing

Safe food: Cooking eliminates most pathogens from foods

- Exclusive breastfeeding for infants up to 6-month of age.
- Weaning foods are vehicles of enteric infection

Micronutrient supplementation: the effectiveness of this depends on the child's overall immunologic and nutritional state.
*Vaccines: Important vaccines*
• Salmonella typhi vaccine
• Shigellaorganisms vaccine
• V. cholera vaccine
• ETEC vaccine
• Rotavirus vaccine
Management (Chikitsasiddhant):

***Ayurvedic view:***

**1.** NidanParivarjana

**2.** Sam and NiramAvashta

*Sam avastha – Dipana- Pachana drugs*

Dipana- Musta

Pachana- Shunthi ,Jiraka,Yavagu- prepared by Lavana,Shunthi,Pippali,Maricha

*Niramavastha*- use the sthambhaka drugs- Kutaja, Patha

**3.** SamraptiVighatana:

1. *Agni vardhakchikista*-Dipana,Pachana Decoction of Musta, Ginger juice, Ativisha and Amalaki Kalka
2. *Apadhatuvruddhi-*
   1.Manda – Laja manda: DipanaAtisaraNashaka
   2. Yusha- Mudgayusha
   3. Peya- maintainhydration /electrolyte
   4. ORS- tomaintainhydration
   5. IV Fluid – Ringerlactat/Normal saline
   6. Probiotic and Zinc (Yashad) supplimentation

3. *Vata shaman*- Madhura, Lavana, Amla Rasa
   Agnitundi Vati, Chitrakadi Vati,

**4.** Shodhana : In Rakta Atisara Piccha Vasti by Shalmali- Mocha Rasa.

**5.** Langhana:- use the Langhana like Pachana, Dipana, Kshudha, Trusha, Atapa sevan , Maruta seven.

Langhana shall be done to dhatri if the child is of kshirapa age followed by pachana including offering yusha andyavagu.

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# Role of indigenous drugs in the treatment of cancer:-

# A holistic approach in palliative care

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*** Pandey K.K. ** Shahi U.P. *** Prasad S. N.**

**ABSTRACT :** Cancer is a global problem being the second commonest cause of death in the developed countries and the fourth commonest cause of death in India. With the control of infective components of disease worldwide, other diseases like cardiovascular, traumatic, diabetes and cancer are becoming prominent health problems.

Pain, anxiety, stress and G.I. disturbances are very common problems in patients suffering from terminally ill patients suffering from disease like cancer.well proved large number of indigenous drugs mentioned in Ayurveda can be used for the purpose along with their principles of treatment.

In the present clinical research an effort was made to evaluate some of the vedanahara drugs (analgesics) and medhya drugs in patients of cancer cervix, who were taking chemotherapy and radiotherapy . The results were very much encouraging in minimising the commonly occurring ailments in cancer patients. This preliminary study also unfolds the newer diminutions of indigenous drugs in the treatment of palliative care in terminally ill cancer patients.

***Key words***- Indigenous, Vedanahara , Medhya, Ashwagandha, Brahmi , Shankhpushpi , Rasna, Nirgundi, Parijata, antidepressants, adaptogenic ,immunomodulator and Palliative Care.

**Introdution :** Cancer is older than the literature of medicine and has affected mankind from time immemorial. The earliest recorded description of cancer is in "Shushruta Samhita" (600 B.C). It was also well known to ancient Egyptian , mentioned in Eber's Papyrus (520 B.C).This was Hippocrtates (460-370 B.C.), who coined first cancer with the term "Carcinos" and described its prognosis.

It has been observed that during the course of treatment i.e. Radiotherapy and Chemotherapy, most of the patients suffer with systemic and local untoward effects .As per W.H.O. the toxic manifestations viz.-gastro intestinal upsets (nausea, vomiting, loose motion etc), haematological suppression and local tissue pain are most common during chemotherapy and radiotherapy.

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Though, the disease cancer is not mentioned as such in the texts of Ayurveda, but the clinical signs and symptoms resembling cancer are mentioned under the heading of Arbuda. In Ayurveda the treatment of cancer has been categorised under the heading "*UPSHAMI CHIKITSA*" (Palliative Care).

WHO defines "Palliative Care as an active and total care of patients whose disease is not responsive to curative treatment". Control of pain, treatment of other symptoms, psychological, social and spiritual problems are of paramount importance during palliative care. The goal of palliative care is to restore quality of life of patients and care of their families even after the death of the patient.

Hence the significant importance of palliative care has been widely accepted to treat a terminally ill patient. Application of principles of Ayurveda and use of indigenous drugs is now being understood well which can play an important role in this regard.

Pain, being the major problem in cancer patient create lot of neurohumoral variations ,which further imbalances the basic physiology because of stress and other psycho-physiological alterations. Use of synthetic and semi synthetic analgesics and anti depressant drugs in such patients for a longer duration with increasing dose demand pattern worsen the health of the patients.

Hence, a thorough search was made to introduce such indigenous drugs as an adjuvant which can pacify pain , minimise stress induced problems and reduce the complications induced by the treatment itself.In the texts of Ayurveda a large number of drugs are described under the heading of *VEDANAHARA* and *MEDHYA* groups with their excellent analgesics, anti stress, antidepressants, adaptogenic and immunomodulatory pharmacodyanamic properties .

The present clinical research work was conducted in the Department. of Radiotherapy ,S.S. Hospital, B.H.U.,Varanasi ,India.. After the registration of patients the analysis of data was done to record the frequency of cancer of different organs of body and the common problems of the disease and the treatment being given to them .On the basis of data collected fifty patients suffering from carcinoma of cervix were selected as subject for the study .

Total 50 patients were randomly divided into two equal groups. Patients of group A( Trial group) were given two capsules of ghansatwa (1 gm each) of Medhya drugs -Ashwagandha (Withania somnifera Dunn),Brahmi (Bacopa monniera) and Shankhpushp(Convolvulus pluricaulis) along with the ghansatwa of Vedanahara drugs 3 capsule (1 gm each) orally, twice a day -Rasna (Plucheà lanceolata),Nirgundi(Vitex negundo) and Parijata( Nyctanthes arbor-tristis) where as patients of group Two (control group) were given a placebo therapy- starch powder 1 capsule of 500 mg twice a day. An informed and written consent of patients of both the groups was taken before starting the treatment. Proper care was taken for pain management and other complications during course of study in all patients .

The response of both the drugs was recorded on a prepared scientific pro forma . The observations of both the groups in three successive follow ups of 15 days interval was compared and Analysed for psycho-physical and analgesics response. The observations reveal that indigenous vedanahara and medhya drugs used as an adjuvant in the treatment of carcinoma cervix patients helped in respect to minimise analgesic dose requirement and restored the better psychophysical status..

Observation and Results -

According to need of the patient there are many modalities to treat cancer viz. Surgery, Radiation therapy and Chemo therapy, Analgesic drugs ,Adjuvant drugs, Spiritual and emotional support etc. The significant importance of palliative care has been widely accepted to treat a terminally ill patient. Application of principles of Ayurveda and use of herbal drugs is now being understood which can play a great role in this regard.

As a matter of fact pain, nausea, vomiting, anorexia, weight loss, diarrhoea, constipation, headache, giddiness, weakness/fatigue, dryness of mouth, insomnia, anxiety, depression, confusion, apprehension , drowsiness, sore throat, breathlessness, bed soar and skin problems etc. are some commonly associated problems in a patient suffering from cancer. Hence a close monitoring was done to observe and record these common symptoms during course in all patients.

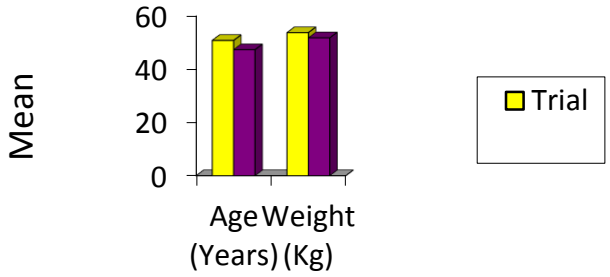


Fig. 1. Comparison of mean age and weight in patients of both the groups.

**The patients of both the groups were statistically identical in age and weight distribution. ( Fig.1)**

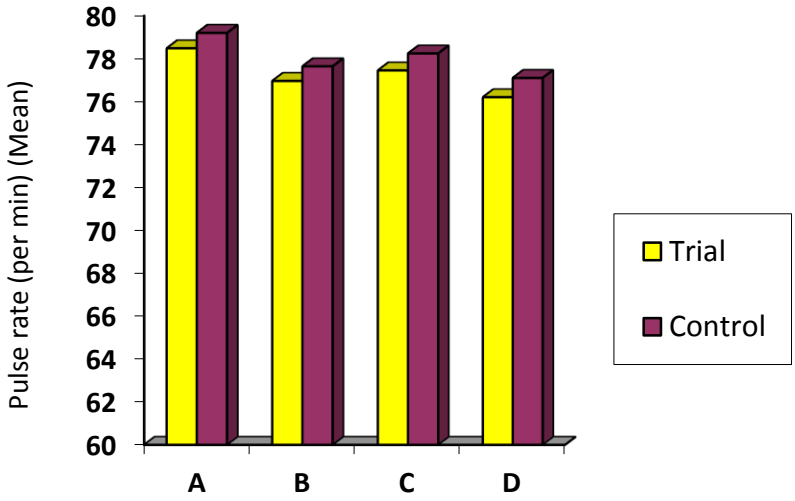


Fig. 2. Comparison of mean pulse rate (per min) in both the groups before treatment (A), after treatment - 1st followup (B), 2nd follow up (C), 3rd follow up (D).

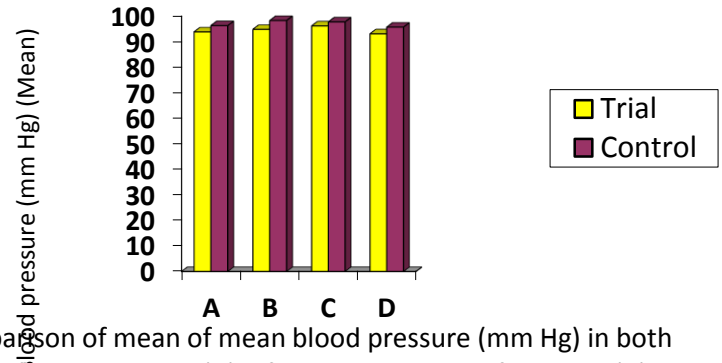


Fig. 3. Comparison of mean of mean blood pressure (mm Hg) in both the groups before treatment (A), after treatment- 1st follow up (B),…

It was observed that there was no any significant changes in pulse rate, Mean blood pressure in patients of both the groups at any state during the study. These observations suggest that the trial drugs compounds did not produce any cardio vascular and respiratory untoward effects. ( Fig. 2,3,)

The significant increase in haemoglobin percentage in patients of group A suggests that patients receiving trial drug compounds responded better over all well being as compared to patients of group B.

No any significant variation was observed in TLC, DLC, Blood urea and Random blood sugar level in the patient of both the groups during course of treatment.

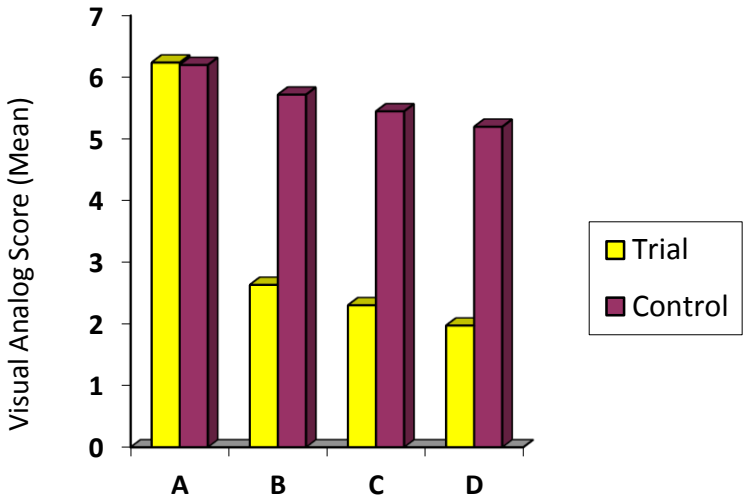


Fig. 4Comparison of Pain Score (Visual Analog Score) in both the groups before treatment (A), after treatment- 1st follow up (B), 2nd follow up (C), 3rd follow up (D).

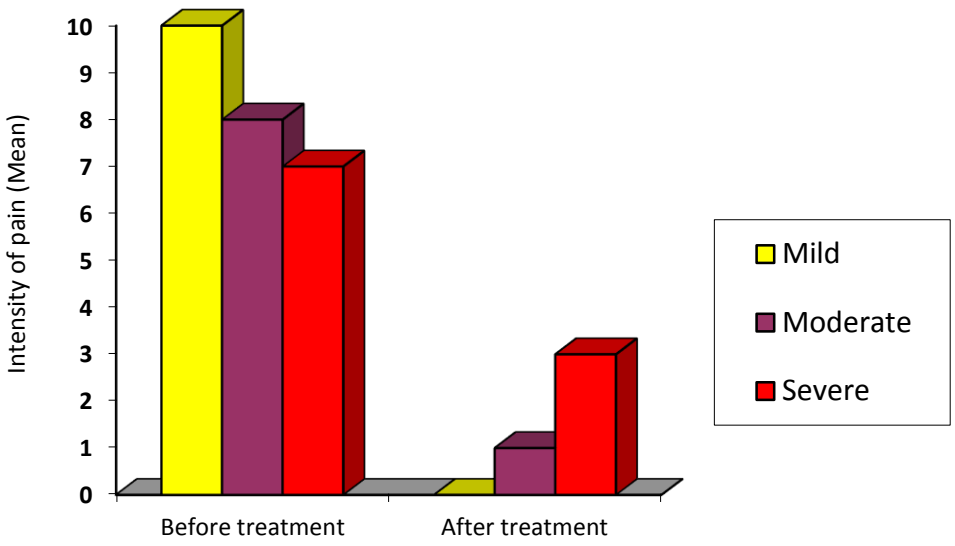


Fig. 5 Comparison of intensity of pain in Trial group before treatment and aftertreatment

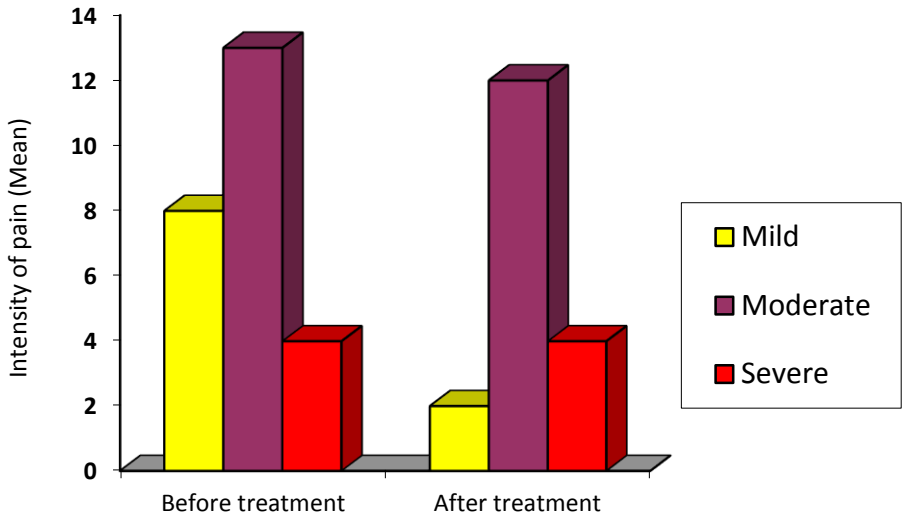


Fig. 6 Comparison of intensity of pain in Control group before treatment and after treatment

A highly significant improvement in pain relief (recorded on V.A.S.) in terms of intensity and nature of pain was observed in patients receiving indigenous drug compounds as compared to patients received placebo therapy.(Fig. 4,5,6)
Regarding G.I.T. disorders (Nausea, Vomiting, Diarrhoea, Constipation, Anorexia ) and psychological complications (Anxiety, Insomnia, Depression, Apprehension, Giddiness, Confusion) the indigenous drug compounds responded well by minimizing their intensity and frequency without producing any un toward effects. .(Fig. 7,8)

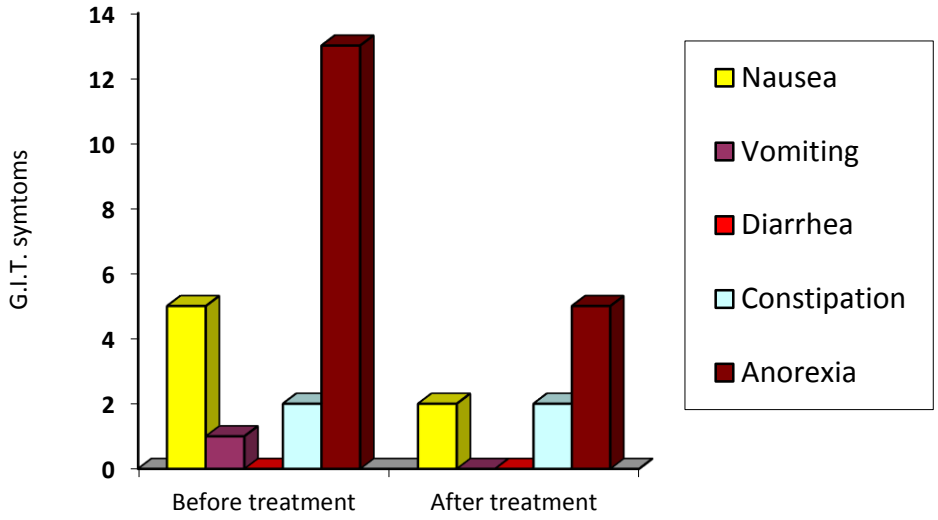


Fig. 7 Comparison of GIT symptoms before treatment and after treatment in trial group

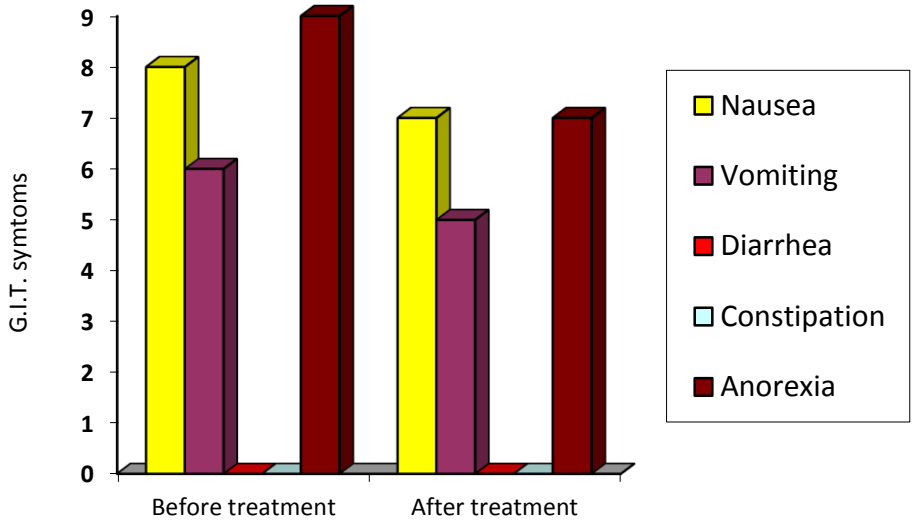


Fig. 8. Comparison of GIT symptoms before treatment and after treatment in Control group .

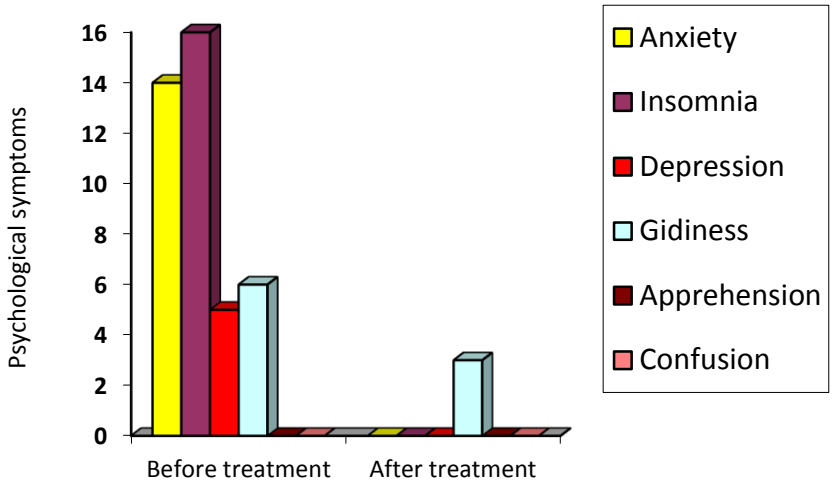


Fig. 9 Comparison of psychological symptoms before treatment and after treatment in trial group

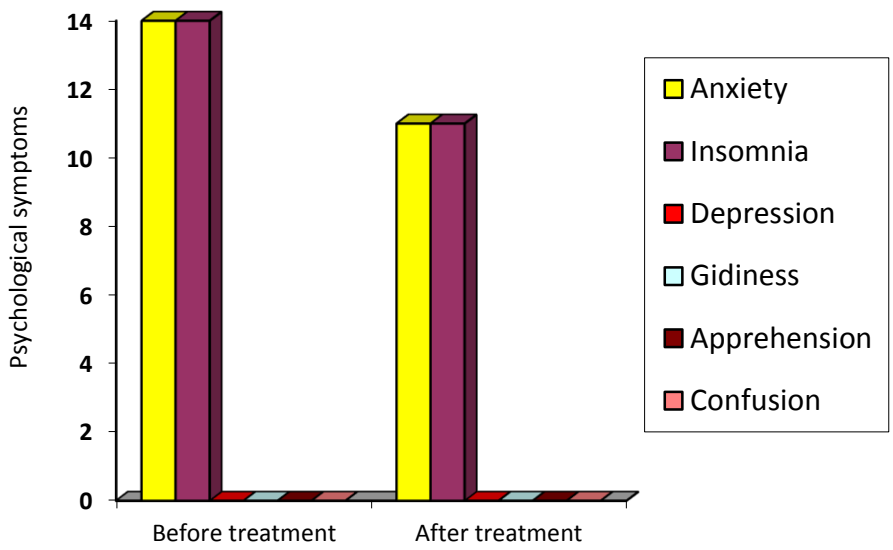


Fig. 10. Comparison of psychological symptoms before treatment and after treatment in Control group

The above observation also support the Analgesic properties possessed by Vedanahara drugs (Parijata, Rasna, Nirgundi) and psychophysical well being properties of Medhya drugs (Ashwagandha, Brahmi, Shankhpushpi) mentioned in texts of Ayurveda. On the basis of above observations we are of the opinion that the indigenous drug compounds used as an adjuvant showed a better treatment of pain management and psychophysical well being in terminally ill patients suffering from cancer cervix. (Fig. 9,10)

**Conclusion -**

On the basis of observations made on 50 cancer cervix patients receiving chemotherapy and radiation therapy along with indigenous drugs as an adjuvant this can be concluded as –

The indigenous vedanahara drug compounds (Parijat, Rasna, Nirgundi) possessing analgesic properties relieved pain in cancer patients in all aspects – intensity, frequency & nature.

The indigenous Medhya drugs compounds (Ashwagandha, Brahmi, Shankhpushpi) when used along with Vedanhara drugs of shaered a good psychophysical betterment in cancer patients.

The indigenous drugs did not show any untoward effects on CVS .

The indigenous drugs were capable enough to minimise the G.I.T. disorders commonly occurring in cancer patients.

The overall well being of the patients was observed in patients receiving indigenous drugs.

In nut shell here it can be concluded that the indigenous drugs mentioned in Ayurveda as Vedanahara( analgesic) and Medhya can play a better role in the management of pain and

palliative care. Further a more detailed study a large number of samples be carried out to evaluate the efficacy of these drugs in other aspects of palliative case.

We are thankful to the members of both the departments of our institute and all those patients who formed an important source of this clinical study. We often remember their sufferings because of disease and pain. O Lord! give us blessings to alleviate the woes of such people ,which we want to cherish as the mission of our life.

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# Future of Herbal Medicine

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**Abstract:**According to the World Health Organization (WHO), because of poverty and lack of access to modern medicine, about 65-80% of the world's population which lives in developing countries depends essentially on plants for primary health care.Medicinal plants have been a major source of cure of human diseases since time immemorial. Today, one fourth of the world population depends on traditional medicines.Indian herbal market is registering an extremely significant growth and is likely to reach Rs.14,500crore (Rs 145,000 million) by 2015 and exports to Rs.9,000 crore (Rs 90,000 million) , according to findings of the Associated Chambers of Commerce and Industry of India (Assocham). It is estimated that the global traditional medicine market is growing at the rate of 7 - 15 per cent annually.Currently, the major pharmaceutical companies have demonstrated renewed interest in investigating higher plants as sources for new lead structures and also for the development of standardized phytotherapeutic agents with proved efficacy, safety and quality. Herbal medicinal preparations are normally very popular in developing countries with a long tradition in the use of medicinal plants and also in some developed countries where appropriate guidelines for registration of such medicines exist.So in our country, mother of the herbal medicine we must have a definite guideline for all the herbs.

Key words: Herbs, Phytotherapeutic Agents, Traditional Medicines,

## Indroduction:

Worldwide in traditional medicine, mainly herbal market has grown at an expressive rate. Several important factors have been contributed to the growth of this worldwide phytotherapeutic market, among which the following may be mentioned: preference of consumers for natural therapies; concern regarding undesirable side effects of modern medicines and the belief that herbal drugs are free from side effects, since millions of people all over the world have been using herbal medicines for thousands of years; great interest in alternative medicines; preference of populations for preventive medicine, effective benefit of herbal medicine in the treatment of certain diseases where conventional therapies and medicines have proven to be inadequate; tendency towards self-medication; improvement in quality, scientific proof of efficacy and safety of herbal medicines as well as high cost of synthetic medicines. In Ayurvedicpathy, different form of drugs such as herbal e.g. Guduchisatva, herbomineral e.g. Mandoorbhasma and mineral drug e.g. Tankan, Spatikabhasma are in used to treat various disorder.

For the promotion of herbal medicines in cosmetic as well as various others disorders there is a need to focus on three fields: Academics, Research,and Social. In the field of academics, government is promoting CME, ROTP, Seminar, conferences to enhance quality of education system, but it seems not sufficient to achieve rapid improvement, probably due to lack of participant interest, multiple topics given to the resource persons for delivering lectures in CME or ROTP, long and tiresome program for the organizers as well as erratic distribution of

fund for the CME, ROTP, conference or seminars. Much improvement in management of all these programs is necessary by avoiding the said hurdles.

In research area, combined and consistent effort for good infrastructures, labs equipments, and research scholars are mandatory and should be supported by Government or private sector, which can enhance quality of drugs and it's standard. Various fields have been opened for the research includes preventive medicine, non-communicable disease [NCD], Vajikaran, Rasayan etc.

By following the given guidelines [Reference Ch. Su. 5] for the Dinacharya, Ritucharya and Ahara-vihara, we can promote good health; prevent life style disorders [LSD], non-communicable disease [NCD], sexually transmitted disease [STD] and many others, which needs more attention to develop more scientific parameters and result. This effort will enable the Ayurveda with evidences to project more scientifically and effectively on global platforms.

In panchakarma procedures by Snehan, drugs are being given transdermally as transdermal patches have been used for different disease in modern science.

It has also been proved that there is a decrease in histamine level by the Vaman karma.

In case of cerebral palsy, Shirodhara and Vasti are the part of treatment and get better result. To measure the improvement or change in above said disease and to make the result more scientific, the Hammersmith neurological examination or Gasel's may be considered.

Shirodhara has been considered to stimulate release of endorphins and pain inhibitory mediators.

Presently, no injectable ayurvedic drug is available in the market to manage the acute or emergency diseases. For this purpose, ayurvedic drugs are required research regarding drug specific pharmacokinetic, pharmacodynamics, half-life, side effects, teratological effects.

Herbals drugs from ayurveda are gaining popularity after a dark period. Main role is played by the media as well as by the recent researches, which are carried out by very less number of research scholars in comparison to other medical streams. To accelerate this, more consistent effort is needed from practitioners, research scholars, social communities and health workers.

Lastly, social aspect needs more involvement of NGO, conduction of camps, exhibitions, rational involvement of media preferable electronic for the prevention of diseases and after treatment care etc over and above the activities carried out presently like *Swastha-mela* should be done on regular basis for more awareness in people.

Lastly,to get the faith and support of society, Ayurvedic research scholars, academicians and herbal drug practitioners that they must develop new drugs, use of well-established drugs with more faith and confidence.

Research scholars, working in institute and Universities, should made collective effort for manufacturing or developing standardized drugs which can be tested very well for the adulteration and to identify the deficient constituent in a compound.

As China has developed their own system of medicine supportive to traditional medicine, we should also develop own system of medicine by considering the core of ayurveda supported

by many other multifaceted-progressive-economy building and disease combating guidance and techniques to be the leader in medicine as holistic medicine.

In people there is lot of charm for the herbal products and we are the owner of that all we need to develop quality products and bless the world by Ayurveda. So we can see that if we have to take Ayurveda globally as like modern medicine, our of research scholars, academicians and social workers should come together as a team and work in co- ordinance for the benefit of our pathy, our country and above all ours good health.

In order to withstand competition in the global market, it is necessary to create a brand image, especially in cosmeceuticals and natural products.

People are now aware of herbal medicine and need them in day-to-day life. Concepts have been developed in minds of common people about the herbal medicine. Not only this we need more support for the superstars, celebrities, cricketers, models to come forward to promote Ayurveda.

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