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ABSTRACT

Pain has been the biggest problem since creation of universe. All the systems of philosophy have taken origin in search of the methods how to relieve the pain. To overcome this problem, various remedies were discovered and attempts were made to prevent the painful situation and cure them if they happen to occur. Acharya Charaka ia a well known physician has given fifty mahakashayas for single and compound drug therapies to different disease ailments. Among them, he mentioned Vedana-Sthapana Mahakashaya. In the present clinical study, thirty numbers of patients were randomly selected from O.P.D and I.P.D of Shalya tantra department of Shri N.P.A Government Ayurvedic College Hospital posted for Anal Canal Surgery. Out of thirty patients of Anal canal surgeries after completion of treatment, maximum relief (above 75%) was observed in 15 (50%) patients, moderate relief(51%-75% of relief) was observed in 12 (40%) patients and mild relief( 26%-50% of relief) was observed in 3(10%) patients. The relief was observed to be more in those patients who have Pravara satva and of middle age group.

INTRODUCTION
Pain is the most common post-operative manifestation after any surgical procedures. It is the sequel of any surgical procedure. In Ayurveda, although many formulations are given for the relief of pain like Vedana Sthapana Mahakashaya (described by Acharya Charaka in Sutra sthana- chapter 4) etc. but no important researches have been made in this regard. Now a day, few single drugs from Vedana-Sthapana Mahakashaya are screened for their analgesic properties such as –Kadamba and Shireesha.

Any part of body where Sanjnavaha nadi (Pain receptors) get stimulated due to some irritation phenomenon leads to Vedana (pain). Acharya Charaka described in Sharirasthana that the location of pain sensation is mind, the body equipped with sense organs except head hairs, body hairs and tip of nail, ingested food, excreta and fluid and sense objects. In our Ayurvedic classics, it has been said that Vatadosha is the prime factor in manifestation of Vedana (Pain). So, any drug or procedures which pacifies Vata act as potent Vedana-sthapanaupaya.[1-5]

Aims and Objectives of the study
1. To assess the efficacy of Vedana- sthapana Mahakashaya ghanavati in the management of Post operative pain W.S.R. to Anal canal surgery.
2. To give maximum relief of pain to patient without any complication.
3. To prove the efficacy of Ayurvedic drugs described in Samhita for better pain relief.

MATERIALS AND METHODS
- **Patients:** The patients attending the I.P.D. of Shalya-tantra in the Govt. Ayurvedic College and Hospital, Raipur (C.G.) have been selected irrespective of their age, sex, religion, occupation etc. randomly for the present study. Patients will be diagnosed on the basis of signs and symptoms as per Ayurveda as well as modern aspects. Patients of post operative cases of anal canal surgeries are selected for the present study.
- **Research Protocol:** Proper research protocol was followed for the study incorporating all the relevant points from both the ayurvedic as well as modern point of view.

Grouping of Patients
Total thirty numbers of patients are selected for the clinical study under single group (Trial group). In this group, Vedana-sthapana Mahakashaya Ghanavati is given to the patients for the relief of post operative pain.
Patient Selection

Patient fulfilling the diagnostic criteria of Anal Canal Disorders (Piles, Fissure-in-ano, Fistula-in-ano) were selected from the I.P.D. of Shalya-tantra department of Govt. Ayurvedic College and Hospital, Raipur. The criteria for inclusion and exclusion were as follows.

Inclusion Criteria for Patient Selection

Age : 18 to 60 years.
Sex : Patients of either sex are included.
Prakriti : All types of prakriti.

Type of Patients

Post operative patients of Anal canal surgery.

Type of Anal canal Diseases

Haemorrhoids, Fistula-in-ano, Fissure-in-ano with/without sentinel piles: These are treated with Kshara sutra, Lord’s dilatation and Partial lateral sphincterotomy. All the above surgical procedures were carried out under local anaesthesia.

Exclusion Criteria of Patient Selection

1. Infected wounds
2. Tuberculosis
3. H.I.V.
4. Immunological diseases like – Crohn’s disease, Ulcerative colitis etc.
5. Sexually transmitted disease.
6. Pregnant woman.
7. Anal malignancy.

Study Design

It is a clinical study of randomly selected thirty patients.

Sample size: Total thirty numbers of patients who were fulfilling the criteria of selection for present study were randomly selected and categorized under trial group.

Group : Trial group
Sample size : 30 patients
Internal : Vedana-sthapana Mahakashaya Ghanavati
Dose : 1 gm B.D. (T.D.S- if required)
Duration : 7 days
Local : Hot water sitz bath
Sitz bath : Every six hourly and after defaecation. Duration-7 Dasys
Duration : 7 days.
Other measures : Mild laxatives – for prevention of constipation.

Mild laxatives were given like; Triphala churna, Avipattikarachurna, Abhayarishta etc.

Diet : Patients were advised to take nutritious vegetarian diet.
Avoid : Patients were strictly advised to avoid excessive use of coffee, tea, smoking and alcohol, spicy fried foods, riding, cycling, prolonged sitting / standing etc.

Clinical Assessment Criteria
1. Pain on movement
2. Pain on touch (Tenderness)
3. Pain during defecation
4. Nature of urination
5. Sleep disturbances

GRADING OF ASSESSMENT CRITERIA
1. Pain on movement
   0. No pain
   1. Mild pain
   2. Moderate pain
   3. Severe Pain

2. Pain on touch (Tenderness)
   0. No pain – No tenderness
   1. Mild – Tenderness on deep palpation
   2. Moderate- Tenderness on moderate pressure
   3. Severe- Tenderness even on touch.

3. Pain during defecation
   0. No pain
   1. Mild pain
2. Moderate pain  
3. Severe pain

4. **Nature of urination**  
0. Normal flow  
1. Dysuria/ Burning micturition  
2. Dribbling of urine  
3. Retention of urine

5. **Sleep disturbances**  
0. No disturbance : sleep for 6-8 hour without any disturbance  
1. Mild disturbance : sleep for 4-5 hour  
2. Moderate disturbance : sleep for 3-4 hour  
3. Severe disturbance : sleep for less than 2 hour

**Hot Water Sitz Bath**  
It can be correlated with Avagaha Swedan mentioned in Ayurvedic literature. In this procedure, Luke warm water is poured in a tub and patient is asked to sit in that tub by dipping his/her perineal region, hip and buttocks up to the umbilicus in the water for about 10-20 minutes. The temperature of warm water should be approximately 105°F to 115°F.

**Probable mode of action of hot water sitz bath**  
Its mode of action is still unclear but several studies shows that sitz bath can provide relief of pain, relaxation and wound healing by increasing blood flow to that area and cleansing the area by reducing surface contaminants. It prolong increase metabolism, circulation to the wound, induce local hyperthermia and stimulate neural receptors. Heat appears to produce definite sedative effect. This local hyperthermia increases sub-cutaneous perineal tissue temperature and oxygen tension, thus significantly promoting wound healing process. It also causes relaxation of muscle of internal anal- sphincter which in turn reduces the pain.

**RESULTS**  
**Data Interpretation**  
The effectiveness of the trial drug has been assessed by the paired student-t test of significance for the purpose of statistical analysis. Assessment of before treatment was done on the Post-operative 1st day.
Effect of therapy (% of relief) on day three

1. Pain on movement: before treatment, the total score of pain on movement was 70 which was reduced to 32 after treatment. This shows that treatment provides 54.28% of relief of pain on movement.

2. Pain on touch (Tenderness): before treatment, the total score was 73 which become 41 after treatment; thus, treatment provides 43.83% of relief of tenderness.

3. Pain during defecation: before treatment, the total score was 88 which become 48 after treatment; thus, treatment provides 45.45% of relief of tenderness.

4. Nature of urination: before treatment, the total score was 40 which become 13 after treatment; thus, treatment provides 67.50% of relief.

5. Sleep disturbances: before treatment, the total score was 40 which become 16 after treatment; thus, treatment provides 60% of relief of tenderness.

Effect of therapy (% of relief) on day five

1. Pain on movement: before treatment, the total score of pain on movement was 70 which was reduced to 18 after treatment. This shows that treatment provides 74.28% of relief of pain on movement.

2. Pain on touch (Tenderness): before treatment, the total score was 73 which become 22 after treatment. Thus, treatment provides 69.86% of relief of tenderness.

3. Pain during defecation: Before treatment, the total score was 88 which became 33 after treatment; thus, treatment provides 62.50% of relief of tenderness.

4. Nature of urination: before treatment, the total score was 40 which was reduced to 2 after treatment; thus, treatment provides 95% of relief.

5. Sleep disturbances: before treatment, the total score was 40 which become 7 after treatment; thus, treatment provides 82.50% of relief of tenderness.

Effect of therapy (% of relief) on day seven

1. Pain on movement: before treatment, the total score of pain on movement was 70 which was reduced to 16 after treatment. This shows that treatment provides 77.14% of relief of pain on movement.

2. Pain on touch (Tenderness): before treatment, the total score was 73 which become 21 after treatment; thus, treatment provides 71.23% of relief of tenderness.

3. Pain during defecation: before treatment, the total score was 88 which became 28 after treatment; thus, treatment provides 68.18% of relief of tenderness.
4. **Nature of urination:** before treatment, the total score was 40 which was reduced to 1 after treatment; thus, treatment provides 97.50% of relief.

5. **Sleep disturbances:** before treatment, the total score was 40 which became 6 after treatment; thus, treatment provides 85% of relief of tenderness.

**DISCUSSION**

**Shaaal**
Shaaal pacifies pitta vitiated due to Shalya karma by its Madhura rasa and Sheeta veerya. Due to its Madhura anurasata, it does the anulomana of Vata. It also has shothanashaka (Anti-inflammatory), jantughna (bactericidal), vedana-shamaka (analgesic) actions, due to its chemical composition like nor-triterpenes, tannic acid, tri-terpenic acid it possess antibacterial, analgesic, anti-inflammatory and wound healing effect.

**Katphala**
Due to its teekshna, laghu guna and ushna veerya, it pacifies vitiated kapha or any other doshas. Due to its ushna veerya, it reduces the vedana (Pain) by pacifying vata obstructed due to kapha and any other doshas.

**Kadamba**
Due to tikta, kashaya rasa, sheetaveerya and shothanashaka (anti-inflammatory) property, it pacifies provoked pitta and in turns it relieves pain. By virtue of its cincho-tannic acid, it has anti-inflammatory and analgesic property.

**Padmaka**
Due to kashaya, tikta rasa, sheetavirya and laghuguna, it especially pacifies provoked Pitta but it is also vatahara, kaphashamaka and raktadoshashamaka. Due to these properties, it reduces the vedana (Pain). The chemical constituents present in its bark like prunetin, padmakastein, sacchuranin, taxifolin etc show activity on C.N.S. and acts like analgesic.

**Tumb**
It reduces the pain by destructing the obstructed Vata due to Kapha prakopa by its katu, teekshna and ushna properties.
Mocharasa
It reduces the pain by pacifying vitiated pitta and rakta due to its kashayarasa, sheetaveerya and snigdhaguna. It also possess antipyretic action due to berberine, dictamine, xanthoplanin etc.

Shirisha
It pacifies Pitta and Raktadosha by its Kashaya, Madhura and Tikta rasa, it pacifies Vata, and by pacifying Vata, Pitta and Raktadosha it reduces the pain.

Vanjul (Jalvetas)
This drug reduces the vedana (Pain) by pacifying Raktaja and Pittaja disorders like burning sensation and inflammation by virtue of its Kashaya, Tikta rasa and Sheetavirya, also due to salicylic acid, it acts as analgesic, antipyretic and anti inflammatory.

Elavaluka
By virtue of its Kashaya rasa and Sheeta virya, it pacifies the provoked Rakta dosha which in turn reduces the vedana. It has antipyretic action and is nervine tonic also.

Ashoka
Due to its Tikta, Kashaya rasa and Sheeta virya, pittaja disorders are reduced and by pacification of pitta, it reduces the vedana. It Possess analgesic, anti coagulant effect due to tonnic acid, gallic acid etc.[4-8]

Out of the above described ten drugs- Initially some of the drugs reduce the vedana by pacifying Vatadosha due to their snigdh guna and ushna virya. Then due to snigdha guna it increases the Kaphadosha and induces sleep and also by its sedative action vedana is reduced. Shaal, Mocharasa, and Jalvetas act as vedana-sthapaka by pacifying vatadosha due to their guru and pichchhila property and Ashoka, Mocharasa, Shirisha, Kadamba reduces the haemorrhagic pain by virtue of their rakta-stambhana and rakta-pitta shamana properties.

As per the modern point of view, some of the drugs have gallic acid, salicylic acid, hydrocyanic acid, and cincho-tannic acid act as analgesic, anti-inflammatory and mild sedative, and due to sedative property it also reduces the pain by acting on the nervous system.[9, 10]
CONCLUSION

Out of thirty patients of Anal canal surgeries after completion of treatment, maximum relief (above 75%) was observed in 15 (50%) patients, moderate relief (51%-75% of relief) was observed in 12 (40%) patients and mild relief (26%-50% of relief) was observed in 3 (10%) patients. The relief was observed to be more in those patients who have Pravara satva and of middle age group. Since the ingredients present in the prepared Vedana-sthapana Mahakashaya Ghanavati possess the qualities of Vata-pitta shaman, jantughna (Antibacterial), shotha-nashaka (Anti-inflammatory), vedana-stapana (Analgesic) action due to chemical composition of the ingredients, that’s why; it relieves the pain on movement, pain on touch, pain during defaecation, as the pain subsides, disturbances in nature of urination also eliminated spontaneously since disturbances in urination also may occur due to pain. Since the prepared drug has mild sedative action thus it also possesses improvement in sleep disturbances.

REFERENCES