LITERARY REVIEW OF DIFFERENT TREATMENT MODALITIES IN ANORECTAL DISEASES

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ABSTRACT

In the field of surgery, the most common anorectal problems faced by the patients are Piles, Fissure and Fistula. Sushruta had mentioned Arsha (Piles) as Arivat Pranan Shrinoti. i.e. harmful like an enemy [1]. These conditions should be treated with care in order to cure the patient. There are various treatment modalities described by Ayurveda as well as modern science. While treating these diseases, one should consider a particular modality in particular situation. Considering anorectal diseases mainly three-four conditions are elaborated in Samhitas like Arsha, Parikartika and Bhagandar. In modern science, also, same pathologies are described at anorectal region like Piles resembling Arsha, Fissure in Ano resembling Parikartika and Fistula in Ano resembling Bhagandar. All these are different entities and require different modalities for treatment. But due to lack of awareness, patients go for wrong treatment and face many complications. So, in this article, proper treatment described in Ayurveda and Modern science is elaborated with comparison of basic principles.

Keywords: Arsha, Parikartika, Bhangandar etc.

INTRODUCTION

These diseases are not generally a threat to human life, but causes considerable discomfort, enforced bed rest, absence of mind from work with consequent economic strain, while the long-range effects of these diseases are induced weakness, which finally saps energy and enthusiasm of the patients. Anorectal disorders are progressively increasing in the society. Few important causes for anorectal problems are sedentary life style, irregular diet and psychological disturbances like anxiety and depression.

AIMS AND OBJECTIVES:
1. To evaluate, elaborate and discuss the various surgical methods of Ayurveda in the management of anorectal diseases like Piles, Fissure and Fistula.
2. To decode the various hidden surgical procedures of the *Sushruta samhita* and correlate with modern technological steps of surgery.

**MATERIAL AND METHODS:**
All sorts of references has been collected from Ayurvedic classics and available commentaries like *Sushruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha, Charaka Samhita, Harita Samhita, Bhava Prakasha, Chikitsa Sangraha Grantha, Kashyapa Samhita, Bhela Samhita and Shrarangdhara Samhita* etc. We have also referred the modern text books of surgery like Bailey and love, Concise textbook of surgery by S. Das, Textbook of operative surgery by S. Das and similar other books and also searched various websites related to surgery.

**Management of Anorectal diseases by Ayurvedic methods:**

a) **Arsha (Piles):** Sushruta has mentioned *Arsha* as a disease in which vitiated *Doshas* along with *Rakta* (Blood) gets accumulated in the major vessels of the body (*Pradhan Dhamanis*) and gets directed towards the anal canal and results in swelling formation (*Ankur*). Sushruta has classified *Arsha* into six types i.e *Vatta, Pitta, Kapha, Rakta, Sanipattaj and Sahaja*.[2] *Arsha* is more common in people having *Mandagni* (Poor digestive power). Sushruta described various treatments in which *Bheshaja* (Oral Medicine) is considered as the first line of treatment.

*Sushruta* has mentioned four modalities of management in *Arsha* (Piles). [3]

1. **Bheshaja** (Oral Medicines)
2. **Kshara** (Alkali)
3. **Agni** (Cauterization)
4. **Shastra** (Operative)

1. **Treatment by Bheshaja:** - Medicinal treatment should be given in patients who are having fresh piles and having less involvement of *Doshas*. Vagbhata has told that *Arsha* is a swelling in the anal canal due to which the anal canal gets obstructed and it troubles the patient like an enemy. Vagbhata has given particular stress over gaining the knowledge about Agni (Digestion) of the patient having *Arsha*, *Atisara* and *Grahani* diseases. [4] These diseases are said to be inter-linked. In non-bleeding piles, *Bhallataka* (Aconitum Ferox) is considered as the most important drug while in bleeding piles *Vatsak* (*Holorrhena antidysentrica*) is the drug of choice. Charaka has given basic line of treatment as *Abhyanga, Swedana, Dhuma, Avagahana, Lepa, Raktamokshana, Deepana, Pachana, Anulomana, Sarpi, Basti, Takra*, etc. [5] *Takra* (Butter Milk) is the drug of choice in all kind of *Arsha* (Piles) in order to increase *bala* (Power) of the patient. Sushruta has advised Panchakarma treatment in *Vata dosha pradhan Arsha*, *Virechana in Pitta pradhan Arsha* and *Rakta Pradhan Arsha*. Shunthi (*Zingiber officinale*) and *Kulith* (*Macrotyloma Uniflorum*) in *Kapha Pradhan Arsha*.

2. **Treatment by Kshara:** - It is advised in piles, which are soft, deep and wide. Sushruta has advised to use *Kshara* in the *Arshas* which are *Vatakaphaja* and *Pitta-raktaja*. *Kshara karma* should be done in the patients who are *Balwana* (having good strength). After applying *Kshara*, one should wait for counting upto 100 .The colour of *Arsha* should look like ripen *Syzygium* (*Pakwajambuphala*). When this sign is seen, pile mass should be washed with kanji (Acidic in nature). After this treatment, patient is advised to take proper diet and this treatment can be repeated after seven days, if needed.
3. Treatment by Agni: - Agni Chikitsa (Treatment with cauterization) is mentioned in piles which are big, hard and rough. Also, Arsha which are Vata Kapha Pradhan should be treated with Agni Karma.

4. Treatment by Shastra: - Shastra Karma Chikitsa (Operative treatment) should be done in piles which are having small and thin pedicle (Tanumoola). Sushruta has advised to excise out such piles.

b) Parikartika (Fissure in Ano): Parikartika literally means the cutting pain. Though nowadays, it is considered a separate disease but in the past, it was mentioned as a complication of some other diseases or some Ayurvedic procedures like Basti. Kashyapa has described Parikartika as a complication in pregnancy.

Sushruta described Parikartika as a complication of one of the Panchakarma treatment i.e Basti. Sushruta has not mentioned directly Parikartika disease but has described a disease resembling as Kshataguda while describing Netra Vyapad (complication of instrument of Basti). Sushruta has told to treat this condition same as wound management mentioned in Sadyakshta-vidhi (Treatment of traumatic injury). Kashyapa has given detailed medicinal treatment for this disease. Kashyapa has advised to treat this condition by the use of medicines like Mulethi (Glycyrrhiza glabra) Kantakari (Solanum surattense) Shwadanshtra (Tribulus terrestris) etc. according to Dosha pradhanya.

c) Bhagandar (Fistula in Ano): According to Vagbhata, there is pustule formation near anal region within the range of two fingers According to Sushruta, Bhagandar is a disease, in which there is Daran (deformity) of Bhag (Pudis), Guda (Anus) and vasti (Bladder). Sushruta has described detailed procedure of Kshar sutra Vidhi. In Purvaroop of Bhagandar, Bhagandar Pidika (perianal abscess) is seen which should be treated first as first eleven types of treatments described in Shashtra Upakrama in the management of Vrana (Sixty types of treatment in management of wound). First of all, one must find the direction of Fistula with the help of Eshani (probe) and thereafter apply a thread which is incorporated with Kshara. Same procedure should be repeated till the track gets completely divided. In case of multiple fistulae at the anal canal (Shataponak), Sushruta has advised four types of incisions - Ardhalanglak, Langlak, Sarvatobhadra and Gotirthak.

B) Management of Anorectal diseases by Modern Science:

a) Piles: Haemorrhoids are the vascular structures (swollen veins) in the anal canal. Modern Science has described two types of piles i.e. external and internal. Internal haemorrhoids exist only inside the rectum and lined by mucosa whereas external haemorrhoids are generally outside the anus and covered by skin. Internal Haemorrhoids are further classified in four stages-

First Degree- Haemorrhoids still remain above the pectinate line. At this stage, pain is not evident. But in some cases, mild discomfort and itching can be observed.

Second Degree- Haemorrhoids come out only during defecation and are reduced spontaneously after defaecation. Piles in second grade are totally discomforting and painful.

Third Degree-Haemorrhoids come out of the anus only during defaecation and not returned by themselves but need to be replaced manually and then they stay reduced.
Fourth Degree- The haemorrhoids are permanently prolapsed. At this stage, there is extreme discomfort with feeling of heaviness in the rectum. These are more prone to infection.

**Treatment options involve following methods:**

1. **Conservative or non-operative method** - This method is applicable when haemorrhoids are secondary to other disorders like constipation, secondary to given laxatives, topical cream application.

   Dietary and lifestyle modification - Avoid straining during defaecation and fibre supplement reduces the extent of bleeding but have no effect on the symptoms of prolapse, pain and itching.

2. **Injection Therapy** - This is the treatment of choice for first degree haemorrhoids and also useful for early second degree haemorrhoids. The treatment includes injection of 5% phenol in Almond oil (3-5ml) in haemorrhoids above the level of dentate or pectinate line [8]. This injection results in fibrous tissue reaction in the submucosa of the anal canal.

3. **Elastic banding** - This technique is applied for second degree haemorrhoids. Haemorrhoidal tissue is grasped and rubber band is applied to the base of haemorrhoids using a haemorrhoidal gun. The tissue gets necroed and sloughs away after 2-3 days. Patient is advised to avoid straining during defaecation.

4. **Cryosurgery** - Liquid nitrogen or carbon dioxide is applied to the haemorrhoids. This produces a liquefactive necrosis of the tissue. The main problem associated with cryosurgery is poor control of depth of freezing which results in seroprotect discharge.

5. **Haemorrhoidectomy** - The indications for Haemorrhoidectomy are third degree haemorrhoids. There are mainly two types of haemorrhoidectomy. a) Open Haemorrhoidectomy b) Closed Haemorrhoidectomy.

Stapled Haemorrhoidectomy - Stapled Haemorrhoidectomy was first described in 1995, Stapled Haemorrhoidectomy is the treatment of choice for third and fourth degree haemorrhoids.

b) **Fistula in Ano:** Fistula in ano is a track lined by granulation tissue which opens deeply in the anal canal or rectum and superficially on the skin around the anus. - Bailey and Love

Fistula implies a chronic granulating track communicating two epithelial lined surfaces. These surfaces may be cutaneous or mucosal. - John Goligher

Fistula is an abnormal track leading from a mucous membrane to another mucous surface or to the skin. - Miller

Clinical Examination includes digital examination and proctoscopy

**Digital Examination** – It should be carried out prior to proctoscopy. Irrespective of the number of external openings, there is almost invariably only one internal opening. Proctoscopy - It reveals the internal opening of the fistula. A hypertrophied papilla is suggestive that the internal opening lies within the crypt related to papilla. Methylene blue or hydrogen peroxide is used to identify the track. Gentle probing should be done to locate the internal opening following Goodsall’s rule. Probing is painful and is liable to reawaken dormant infection. If patient is experiencing pain, makes a sudden jerk, a false passage may be formed. Probing should be postponed until the patient is under anesthesia.

**Surgical Management includes**-
**Fistulotomy** - Division of all structures including external and internal opening is done. Probe is passed and amount of sphincter below and above probe noted and tract is laid opened over the probe. Thereafter granulation tissue is curetted.

**Fistulectomy** - It means coring out fistula. Tract is better identified especially secondary tract. It takes longer time for healing than fistulotomy

**Seton placement** - A seton of monofilament nylon is tied loosely around the fistular track and may be used to drain trans-sphincter fistula. The seton can be removed after 2 to 3 months.

**LIFT (Ligation of intersphincteric fistula track)** - It is based on secure closure of the internal opening and removal of infected cryptoglandular tissue through the intersphincteric approach. Incision is given at the intersphincteric groove and identification of the intersphincteric tract is done, thereafter ligation of intersphincteric tract close to the internal opening is done and then remove the intersphincteric tract. At last, scraping of all granulation tissue in the rest of the fistulous tract is done and sutures applied.

**VAAFT (video assisted anal fistula treatment)** - This technique involves use of an endoscope, i.e. Fistuloscope. It consists of two phases: Diagnostic phase and Operative Phase [9].

c) **Fissure in Ano**: Still a large no. of people of world population is troubled with Fissure with Sentinel Piles which is perhaps due to inconsistency of the human diet and social obligations demanded by civilization. Sentinel Piles is one of the clinical feature of chronic fissure triad. Incidence of Sentinel piles is more in young age than old age. There are more chances of Sentinel Pile formation at anterior site in females and posteriorly in males. Anal fissure is a longitudinal split in the anoderm of distal anal canal which extends from the anal verge proximally towards but not beyond the dentate line. [10]

Treatment of fissure includes conservative management, medical Therapy and Surgical management.

a) **Conservative management**- Breaking the cycle of hard stool, pain and spasm is primary aim of treatment and that can be achieved by adequate fluid, fibre rich diet and by stool softeners.

b) **Medical Therapy** - Mainly topical agents are used - Nitrates and calcium channel blockers and one injectable agent, Botulinum.

c) **Glycerin Trinitrate (GTN)** - Chemical Sphincterotomy is the term used for medical management of fissure in Ano with GTN. Nitrates are metabolized by smooth muscle cells to release nitric oxide which is the neurotransmitter mediating relaxation of internal anal sphincter muscle. The most common side effects of GTN are headache and hypotension.

d) **Calcium channel Blockers** - Calcium channel blockers prevent influx of calcium into smooth muscle cells, decreases intracellular calcium and thus prevents smooth muscle contraction. Postural dizziness or a drop in blood pressure are the major side effects of calcium channel blockers.

e) **Botulinum A Toxin Injection** - Botulinum A toxin is a potent neurotoxin and when it is injected into internal anal sphincter, it produces a chemical denervation of motor end plates and that leads to decrease in resting anal pressure and improved perfusion. Side effects include temporary incontinence and urgency, cost is high, recurrence of the disease is common.

f) **Surgical Management** -
i) Manual dilatation of Anus- It reduces the sphincter tone. This procedure is gradually being abandoned because it frequently produces an uncontrolled tearing of sphincter muscle which results in incontinence.

ii) Lateral Internal Sphinctrotomy- It is performed by two methods- open or closed. In both methods, internal anal sphincter fibres are divided laterally. This sphinctrotomy may cause incontinence in 0 to 50% of patients. Other complications are haematoma, abscess formation, recurrent ulcer formation and persistent mucous discharge.

**DISCUSSION**

Various treatments are available in present era for piles, fissure and fistula. Each treatment is designed in order to achieve minimal complications and recurrence of the disease. An Ayurvedic view as well as modern view was studied in this article. According to Sushruta, haemorrhoids is a disease of Rakta dhatu, vitiated with Tridoshas and gets collected at Dhamanies (veins) at the anal canal. While in modern science, piles are considered mainly as local entity and surgical intervention is the main treatment. Modern science describes various treatments like conservative method in which we mainly treat constipation. Sclerotherapy and banding technique resembles Ksharsutra ligation as mentioned by Sushruta. Cryosurgery can be compared with Kshara application described by Sushruta. Sushruta has advised medical treatment in Bhagandar Pidaka (Perineal abscess) and if it gets burst, it should be treated as Vrana (Shashti Upkrama). In modern science, ‘Seton placement’ is mentioned which can be compared with Ksharsutra. The difference is modern science has described use of a monofilament thread which is not having any medicinal property whereas Ksharsutra described by Sushruta is having medicinal property too.

The main principle of Ayurvedic treatment is to achieve sphincter relaxation and wound healing. Same principle is described in modern science, but beyond that additional treatment like use of Glycerin Trinitrates, calcium channel blockers Botulinum- A toxin injection is also described.

**CONCLUSION**

Decision to choose the right option of treatment for anorectal diseases is very important in order to avoid complications. Looking towards treatment option described by Ayurveda as well as modern science we can conclude that many of the principles for treatment in anorectal diseases like piles, fissure, and fistula are same. But as far as removal of the underlying cause is concerned, Ayurvedic Samhita has elaborated more options.

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Source of Support: Nil
Conflict Of Interest: None Declared