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A DETAILED REVIEW ON THE CLASSICAL AYURVEDIC AND MODERN ASPECTS OF BHAGANDARA W.S.R. TO FISTULA-IN-ANO

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ABSTRACT

Among various diseases ayurveda has grouped eight of them that severly affect health and are often associated with troublesome complications and challenges to the medical science i.e. vatvyadhi, prameha, kustha, arsha, bhagandara, ashmari, mudgarbha, and udar roga are those eight diseases which are difficult to cure by nature[1]. In the present study attention is paid on the bhagandara. Etymologically it is derieved from “bhaga” and “daran”. Literally the word “bhagandara” means splitting around guda, yoni and vasti. In classics like Sushruta samhita, this disease start as pidika called as “bhagandara pidika” which suppurates and on bursting leads to bhagandara[2]. A very similar condition is described in modern science as fistula-in-ano. The fistula-in-ano is an abnormal hollow track or cavity that is lined with unhealthy granulation tissue that communication between the anal canal and the perianal skin. It usually results from an ano-rectal abscess, which burst spontaneously or opened inadequately. In Ayurveda treatment is classified into preventive measures which includes nidana parivarjan and curative which includes medical management and surgical management, though there are several types of treatment like medical, para surgical etc that have been described in ayurvedic classics, but the treatment of bhagandara is mainly surgical. In modern science treatment of fistula-in-ano is various types of surgical procedures which now also includes laser therapy.

KEYWORDS: Fistula-in-Ano, Bhagandara, bhagandara pidika, nidana parivarjan.

INTRODUCTION

Ayurveda deals with physical, mental as well as spiritual well being of an individual thus covering all fields of human life. Sushruta has given definition of health as ‘One is in perfect health when three doshas (vata, pitta kapha), digestive fire (digestion, assimilation and metabolism) all the body tissues and components(dhatu), all the excretory functions are in perfect order’[3] (Su. su.15/41). Ayurveda is science of life which is comprehensive system of health , which not only treat diseases but also help in prevention of various diseases through various lifestyles. Our lifestyle has been changed, which has negative effect on our health. Fistula-in-ano has also come in the same scenario which is a most common anorectal disease and is very difficult to treat. In Ayurveda it is called bhagandara which starts with a pidika called bhagandara pidika which on suppurates leads to bahagandara.[2] In modern science, an anal fistula is small tunnel that is lined by unhealthy granulation tissue that connects to infected gland inside to an opening on the skin around the anus. Symptoms include pain, swelling, pus discharge around the anus. Fistula-in-ano is treated by surgery. Various procedures has been given for its treatment like fistulotomy, fistulectomy, seton placement, VAAFT technique, LIFT technique , Laser treatment etc. In Ayurveda treatment is classified into preventive measures which includes nidana parivarjan and curative which includes medical management and surgical management, though there are several types of treatment like medical, para surgical etc that have been described in ayurvedic classics, but the treatment of bhagandara is mainly surgical.

Review of Ayurvedic Literature

In Ayurvedic classics bhagandara is considered as one of the asta mahagada i.e., very difficult to cure.[1] Bhagandara is one of the commonest disease occurs in ano-rectal region. In all Ayurvedic classics the description of the disease is available but Sushruta, the father of Indian Surgery has described all the details of this disease.

The word bhagandara is the combination of two words "**Bhaga**" and "**Daran**" which are derived from root **Bhaj** and **Dri** respectively. The Bhaga has different meanings as described by different authors. Vijayarakshita and Srikantha dutta had told that three structures namely Bhaga (Vagina), Basti(Urinary bladder) and Guda(Ano-rectal canal) are called as Bhaga. Bhavamishra has mentioned Bhaga as the synonym for Yoni (vagina) and Medhra (Penis). Bhaga is a word, which means all the

structures around the guda including yoni and basti. The second word Daran means tear of surface associated with pain. Finally it can be concluded that bhagandara, is a pathological condition which causes tear and pain in the guda (ano-rectal canal), yoni(vagina) or basti(urinary bladder).

All the Ayurvedic classics have described the bhagandara in their own way. Charaka says that bhagandara is a disease which occurs on the guda after bursting of suppurated painful bhagandara pidika. Sushruta has described the disease in detail. He says that bhagandara starts as deep-rooted pidika (boil) around the guda within two angulas circumference, producing fever and pain.[4]

According to Sushruta, there are four characteristic features of bhagandara.

1. Formation of a boil that is called pidika in its infective condition.
2. The boil should be within two fingers circumference of anal orifice and when it bursts called as bhagandara.
3. Deeply rooted.
4. Associated with pain and fever.

According to Vagbhata, the bhagandara is

1. An ulcer which develops on bursting of a boil.
2. It should be with in one or two fingers of the anal orifice.
3. Constantly discharging.
4. This boil is called pidika, but when it suppurates and bursts then called as bhagandara.

Finally bhagandara may be concluded as it is primarily a disease of ano-rectal region, though it is likely to communicate with vagina, urethra and urinary bladder and due to vitiation of apana vayu. It is a result of bursting of bhagandara pidika, which is deep-rooted in the ano-rectal region. Its location is within two fingers circumference of anal opening. This bhagandara if neglected without treatment, flatus, urine, faeces and semen may start coming from it.

HISTORICAL REVIEW

1. Puranas

The earliest reference of bhagandara is seen in Garuda purana with usage of triphala gugglu and vyosha prepared with ghee. Use of trivrit, jeevanti, danti, manjistha, haridra, daruharidra and nimbpatra are also advised.

2. Samhitas:

Sushruta (800-1000 B.C.) has given elaborative description of aetiopathogenesis, symptomatology, classification, complications, management and various other aspects of bhagandara in his treatise. Charaka (1000 B.C.) has given reference of bhagandara in Shotha chikitsa chapter and has written very little on this disease. Charaka mentioned nidan, paribasha and chikitsa. Vagbhata (7^{th} A.D.) has followed Sushruta's description, but he added few more varieties of bhagandara.

3. Madhava Nidana

The etiology, symptoms and prognosis are mentioned in well manner.

4. Chakradutta

In this chikitsa grantha the general management and pathyaapathya of bhagandara are available along with bhagandara pidika treatment. Preparation of Kshar Sutra and Kshar Varti has been also described by him.

5. Chikitsa Sara Samgraha (Vang Sen)

In this Grantha the description of bhagandara is available in Bhagandara Rogadhikara

6. Sharangdhar Samhita

Sharangdhar has described eight types of bhagandara in seventh adhyaya of Pratham Khand .

7. Bhavprakash

It contains full description regarding bhagandara in Bhagandara Rogadhikara .

8. Bhaishajya Ratnavali

Variety of treatments is available in this text for the treatment of bhagandara under Bhagandara chikitsa prakarna .

9. Yog Ratnakar

In Uttarardh of text, description of many aspects of bhagandara is available.

10. Ras Tarangini

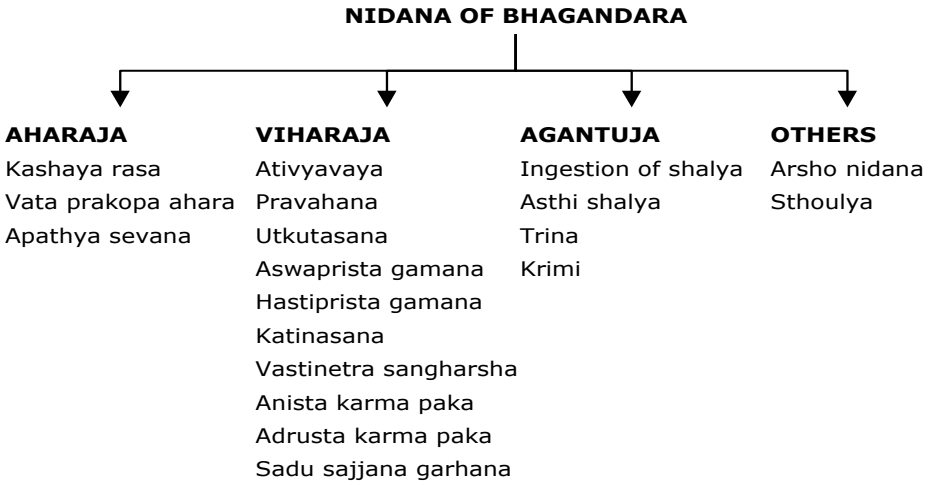
Acharya Sadanand Sharma has described the preparation and use of ksharsutra

NIDANA (Aetiology)

The causative factors of bhagandara may be classified into two groups. They are

1. General Causes
2. Specific Causes

1. General Causes: Different authors have mentioned it in different ways. These causes are:



2. Specific causes

While in specific type of bhagandara has specific aetiological factors responsible for the provocation of respective dosha.

Samprapti (Pathogenesis)

Nidana - Mithyahara vihara, Apathya sevana
Pradhana dosha - Vata
Anubanda dosha - Pitta Kapha
Dushya - Mamsa, Rakta
Adhisthana - Guda

In Ayurveda the pathogenesis of bhagandara is mentioned in detail. According to tridoshic fundamentals it is much easier to break a pathogenesis process before it reaches the full developed disease. As we know that first stage of bhagandara is pidika when this stage was neglected it leads to fully developed disease bhagandara. Bhagandara pidika passes the three stages known as Ama, Pachyamana and Pakwa stages. In this way all the three stages are responsible for the formation of bhagandara. When bhagandara pidika remains untreated and neglected it becomes deep seated, get suppurated and formed pus being collected, further obstructed and leads towards formation of sinus or bhagandara. The pathogenesis of bhagandara is completely depends upon the management of pidika. Sushruta has described manifestation of any disease in 6 stages i.e. Shatkriya kala.[5]

Classification of Bhagandara[6,7,8]

There are two main classification of the bhagandara mentioned in ayurveda

1. The classification of Susruta is very scientific, practical as well as logical one. Therefore accepted by most of the successive authors. Sushruta has described five types of bhagandara i.e., Shataponaka, Ushtragreeva, Parisravi, Shambukavarta, and Unmargi.
2. In Vagbhatta classification, in addition to five varieties mentioned by Sushruta, three more types are introduced namely, Parikshepee, Riju, and Arsho bhagandara.

Table 1:

S.No.	BHAGANDARA	S.S.	A.S	A.H.	M.N	S.S.	C.S.	B.P	Y.R
1	**Shataponaka**	√	√	√	√	√	-	√	√
2	**Ushtragreeva**	√	√	√	√	√	-	√	√
3	**Parisravi**	√	√	√	√	√	-	√	√
4	**Shambukavarta**	√	√	√	√	√	-	√	√
5	**Unmargi**	√	√	√	√	√	-	√	√
6	**Parikshepi**	-	√	√	-	√	-	-	-
7	**Riju**	-	√	√	-	√	-	-	-
8	**Arsho bhagandara**	-	√	√	-	√	-	-	-

Sushruta and Vagbhata from surgical point of view depending on opening of bhagandara nadi (fistulous track) the disease has been classified into two varieties
(1) Arvachina - Antarmukhi (Blind internal)
(2) Parachina - Bahirmukhi (Blind external)

Arvachina

In this, track opens inside the ano-rectal canal without external opening. It is called as antarmukhi (blind internal).

Parachina

In this, track opens outside without internal opening. So it is called as bahirmukhi (blind external).

Aetiopathogenesis of different types of bhagandara

1) Shataponaka Bhagandara

Dalhana stated that shataponaka means hundred, here we can interpret as an abscess which has multiple openings like a chalanika (sieve). Thus fistulae and rectal sinuses which have got multiple small openings are preceded with perianal boils is called shataponaka.[20]

Table 2: Comparative study of Shataponaka bhagandara by different authors.[9]

S. No.	Features	Sushruta	Vagbhata	M.Nidana
1.	Dosha	Vata	Vata	Vata
2.	Dushya	Rakta, mamsa	Rakta, mamsa	-
3.	Sthana (site)	Within one or two angulas of Guda	within two angulas of Guda	within two angulas of Guda
4.	Colour of pidika	Aruna	Shyava, Aruna	-
5.	Character of pidika	Pricking, cutting beating, splitting ,biting, whipping,	Pricking,Spliting, twitching	Severe pain
6.	Character of discharge	Thin, frothy, Clear, copious abundant	Thin, frothy Abundant	Frothy
7.	Colour of discharge	-	-	Aruna
8.	Other features	Multiple openings, in later stages discharge of flatus, urine and semen	Multiple openings	Multiple openings. In later stage, discharge of urine faeces and semen

(2) Ushtragreeva Bhagandara

The word ushtragreeva literally denotes a neck of camel. According to Sushruta, the pidika (Boil or Abscess) of this type is red, thin and raised like the neck of camel. If this pidika neglected without treatment it get suppurate and bursts leads to ushtragreeva bhagandara.[10] The formation of long linear tracts may be compared as camel's neck. It can be compared as Transsphincteric fistula. Goligher has also recognised similar type of fistula and has described as follows - "In many long standing cases however the opening is situated on the summit of little pink or red nodule due to exuberant granulation tissue".

Table 3: Comparative study of Ushtra greeva bhagandara by different authors.

Sno.	Features	Sushruta	Vagbhata	M.Nidana
l.	Dosha	Pitta	Pitta	Pitta
2.	Anubanda Dosha	Vata	-	-
3.	Dushya	Rakta,mamsa	Rakta, mamsa	-
4.	Sthana (site)	Within 1 or 2 angulas of Guda	within 2 angulas of Guda	Within 2 angulas of Guda
5.	Colour of pidika	Rakta	Rajani	Rakta
6.	Character of pidika	Thin, elevated Ushtragreevakara	Thin,small,warm, smoky, and raised swelling	-
7.	Character of pain	Ushna, chosha, burning pain like agni and Kshara	-	-
8.	Colour of Discharge	Warm, offensive smell	-	Warm,offensive smell

1) Parisravi Bhagandara

The term parisravi has been used because of the continuous discharging nature of the wound. Sushruta has described that provocated vata carries the vitiated kapha at the area of guda and results parisravi bhagandara.[11] Generally it seems that the perianal boil takes a long course to suppurate and burst, patients main complaint of itching and lubricous persistent discharge. Usually their track takes long horizontal or high rectal course.

Table 4: Comparative study of Parisravi bhagandara by different authors.

S. No.	Features	Sushruta	Vagbhata	M.Nidana
1	Dosha	Kapha	Kapha	Kapha
2.	Anubhanda Dosha	Vata	-	-
3.	Dushya	Rakta, Mamsa	Rakta, Mamsa	-
4.	Sthana (site)	Within 1 or 2 angula of Guda	Within 2 angula of Guda	Within 1 or 2 angula of Guda
5.	Colour of pidika	Sukla	Pandu	Sukla
6.	Character of pidika	Sthira (firm)	Sthira, snigda mahamula	Kathina
7.	Character of pain	Kandu	Kandu	Kandu, vedana
8.	Character of discharge	Pichila, Constant discharge	Pichila, Profuse discharge	Thick discharge
9.	Other features	Firm and hard boil	Firm, shiny ,deep rooted	Hard boil

2) Shambukavarta Bhagandara

The word shambukavarta literally means 'Ridges of a Conchshell' suggest that the pathway of track is curved and deeper one looks like ridges of shankha. So, it is called shambukavarta. According to Sushruta, the pidika in shambukavarta is large in size and elevates resembles a padangusta (Big toe) pramana. This type is due to vitiation of all three doshas.[12]

Table 5: Comparative study of Shambukavarta bhagandara by different authors.

Features	Sushruta	Vagbhata	M.Nidana
Dosha	Vata, Pitta, Kapha	Vata. Pitta, Kapha	Vata. Pitta, Kapha
Dushya	Rakta, mamsa	-	-
Sthana (site)	Within 1 or 2 angulas of Guda	-	-
Colour of pidika	Colour of previous three pidikas	-	Bahu varna
Shape of pidika	Padangusta pramana	Padangusta pramana	Gosthanakara
Character of pain	Pricking, burning, Itching.	Severe pain	Severe pain
Character of Discharge	Bahu varna srava variegated colours	-	Bahu varna srava variegated colours
Other features	Pain is like waves in Purna Nadi Shambukavarta	Line of track Shambukavarta shula, daha ,arochak	Nadi is like Shambukavarta

Madhavakara has mentioned that the shape of pidika like gosthanakara (teats of cow). The huge indurated abscess of shambukavarta resembles gosthana i.e. a big convex protruding surface. This seems to be the high rectal external sinus with horse-shoe type of course and thus taking an oblique curve like ridges of a screw around the rectum

3) Unmargi Bhagandara

This type of bhagandara caused by trauma and there is no doshic involvement. Asthi shalya or any foreign substance ingested with food, which on reaching guda causes trauma to develop bhagandara. In this media, krimi (maggots) burrows the anal canal and rectum, through these openings flatus, faeces, urine, semen and krimi srava will be seen.(Su.Ni.4/9). It is an internal sinus caused by tearing of the mucous membrane of anal canal whether by bone piece or hard scabaloids of stool and the contact of infectious substance.[13]

4) Parikshepi Bhagandara

It originates from vitiated vata and pitta. It manifests as tamra varna pidika with burning sensation and pain in the perianal region. The track is of curved type. Arunadutta and Indu states that the track of parikshepi bhagandara surrounds the guda as the trench around a fort. This can be compared to a posterior horse-shoe ischiorectal fistula.

5) Riju Bhagandara

The vitiated vata and kapha produces the pidika, which later on suppurates and form a straight track in the anal region. Because of its straight nature of track, it is called riju bhagandara. Fistulas arising from the anterior half of the anal canal are usually straight in nature can be compared as riju bhagandara.

6) Arsho Bhagandara

It was originated from vitiated kapha and pitta which reaching at the base of arsha, produces whitish shopha which causes burning and itching pain. This swelling suppurates quickly to discharge continuously and arshomoola becomes wet. The tract is present at the base of arsha and there is mixed types of discharge from multiple openings of the wound.

It is one of the most common type of fistula arises from the chronic tissue. Formation of a large fleshy mass from the anal papilla on the dentate line at the upper end of the fissure in later stages. Infection of the sentinel pile which

develops at the lower end of the fissure at the anal verge may lead to the formation of a superficial fistula. This type of fistula can be compared as arsho bhagandara.

Sadhyasadhyata (Prognosis)
Bhagandara is one of the astamahagada which is difficult to treat. All ayurvedic authors have considered shambukavarta (tridoshaja) and unmargi (agantuja) are asadhya while remaining are krichasadhya.

Any bhagandara which discharges flatus, faeces, urine, semen and krimi are incurable.[14] We can infer that ano-rectal, recto-vesical, recto-urethral fistulas are incurable. Any tract of bhagandara which cross pravahani vali and sevani vali are also incurable.

Management of Bhagandara
(1) General Principles
Charaka has enumerated the main principles of management of bhagandara as follows.
(a) Virechana
(b) Eshana
(c) Patana
(d) Marga vishuddi or Vranashodana
(e) Taila daha
(f) Chedana & Kshara Sutra application

Acharya Shodala has described the principles of management of bhagandara according to stage wise.

(a) First stage
The stage of bhagandara pidika, when there is no suppuration, it is better to perform raktamokshana by leech, because in initial stages of inflammation, local blood supply enhances which causes pain, swelling, hyperaemia, itching. According to ayurveda, raktamokshana is helpful to reduce the disease and its symptoms.

(b) Second Stage
It is the stage of formation of bhagandara or stage of suppuration. In this stage, one should perform excision of track followed by cauterization with kshara or agni. So has mentioned to implement the use of first eleven measures of shasti upakramas.

Bhavaprakasha and Bhaishajyaratnavali have also advocated the surgical procedures followed by kshara or agnikarma to do the chemical and thermal cauterization of the open wound.

(2) Management
(1) Nidana Parivarjana: The aetiological factors of bhagandara must be avoided.

(2) Medical Management
It is advocated in both bhagandara pidika stage and after surgical excision of the fistula track. The aim of medical treatment in pidika stage is to prevent the disease and its symptoms. It consists of local and systemic management.

(i) Local
1. Management in amavasta - Follow the same principles of management of amashopha like vimlapana, avasechana, upanaha, patana, shodhana, ropana and vaikritapaha.
2. Drugs which help in purification of track after surgical excision are trikatu, vacha, hingu, lavana and deepana drugs along with kanji, kulatha, mix in the form of a paste and apply on wound.[15]
3. Kushta, trivrit, tila, danti, pippali, rock salt, honey, haridra, triphala, tutha should be applied on the wound.[16]
4. Drugs which help in healing of track i.e. paste prepared from rasanjana, haridra, manjista, nimba, trivrit and danti can be applied on the wound for healing.[17]
5. Trivrit, tila, nagadanti and manjista with milk and honey can be applied on the wound for healing.[18]

(ii) Systemic
1. Deepana and pachana drugs - Pippali, pippalimula,chavya, chitrak, vacha, hingu, ajamoda, maricha etc.
2. Mridu virechana drugs - aragvadha, haritaki, shunti, trivrit etc.
3. Krimighna drugs - Vidanga, vacha, palasha, tulasi, udumber.
4. Shothahara drugs - Guggulu, yastimadhu, triphala, dashamula.

(2) Surgical Management
Though there are several types of treatment like medical, para surgical etc that have been described in ayurvedic classics, but the treatment of bhagandara is mainly surgical. It is indicated in complicated and agantuja types of bhagandara and also where there is failure of medical management in bhagandara.

The patient should lie on the table and position should be as mentioned in operation of arsha by Sushruta. Then anus should be lubricated and bhagandara track is examined to decide whether the bhagandara is prachina (blind external) or arvachina (blind internal).

In case of parachina bhagandara, the eshani yantra (probe) is to be introduced into the external opening and whole track has to be excised from the root. But in case of arvachina, bhagandara yantra is introduced into the anal canal and patient should be asked to strain. During straining, the eshani (probe) is introduced into the internal opening. Then the whole track has to be excised followed by cauterization with the help of kshara or agni. This technique of Sushruta is same as fistulectomy.

(ii) Specific Surgical Procedures to different types of bhagandara
1. Shataponaka Bhagandara
Both Sushruta and Vagbhata have described different types of incision, which can be applied according to the situation of track, relation with the anal sphincters etc

like langalaka, ardh langalaka, sarvatobhadrak, goteerthaka.

2. Ushtragreeva Bhagandara
No specific incision is described but simple excision of the track followed by application of kshara to remove the necrotic tissue. Sushruta had contraindicated the agni for cauterization because agni will aggravate the pitta dosha .

3. Parisravi Bhagandara
In this type, first the track is located with probe, then it has to be excised and the wound should be cauterized with kshara or agni. Later the wound is washed with warm water and vasti of warm mahanaryan taila is given. The different incisions are described by Sushruta according to nature of the track and patient are Kharjura Patraka, Chandrardha, Chandrachakra, Suchi Mukha, Awangmukha.

4. Shambukavarta Bhagandara It is considered as asadhya (incurable) for treatment because it is due to the vitiation of all the three doshas. Hence, only conservative measures were described.

5. Unmargi Bhagandara
It is described as asadhya, even though management has been described by both Sushruta and Vagbhata. It is caused due to injury from foreign body hence the principle of treatment is excision of track and removal of foreign body followed by cauterization with agni. Later krimihara drugs are applied locally and also taken internally.

6. Parikshepi Bhagandara
Vagbhata has suggested that it has to be treated on the lines of nadivrana with kshara sutra.

7. Riju Bhagandara
No specific treatment is described for this bhagandara. Therefore, it can be treated same as the other simple types of bhagandara.

8. Arsho Bhagandara
It is the co-existence of arshas along with bhagandara. So, arshas should be treated first before treating bhagandara.

(3) PARASURGICAL MEASURES
The parasurgical measures mentioned by different authors are for both individuals as well as an aid to surgical procedures. They are

i) Raktamokshana (Blood letting)
All ayurvedic authors have suggested raktamokshana in the management of bhagandara pidika to prevent suppuration and further progression of disease. The aim of blood letting is to alleviate the vitiated dosha in amavasta. Jalukavacharana is the most preferable method in bhagandara pidika.

(ii) Agni karma (Thermal cauterization)
Agni karma is done by applying heated shalaka made up of different metals having suitable length, thickness and shape, according to track. It is the application of heat to cauterize the track or to control the hemorrhage after surgical procedure in different types of bhagandara, except in ushtragreeva. It is also indicated to destroy the residual tracks. Pratisarana type of agni karma is most preferable in bhagandara.

The aim of agni karma may be to burn away necrosed and hard fibrous tissue which prevents the closing of the track. Once the fibrous tissue is burnt out, then it may be expected to develop healthy granulation tissue and wound heals without recurrence.

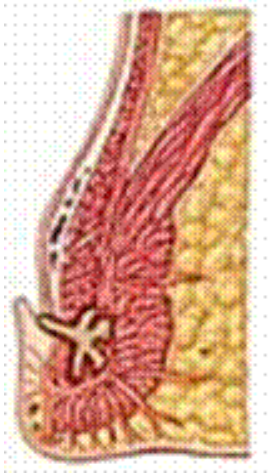
(iii) Kshara Karma (Chemical Cauterization)
Kshara is also one variety of cauterization by using phytochemical substance. It can be used as an individual or an adjuvant to surgical measure. Pratisaraniya kshara which is in liquid form and especially indicated in bhagandara. This may be acting as chemical cautery which burns out the fibrous track and then fresh healthy granulation tissue develop and wound heals without recurrence.

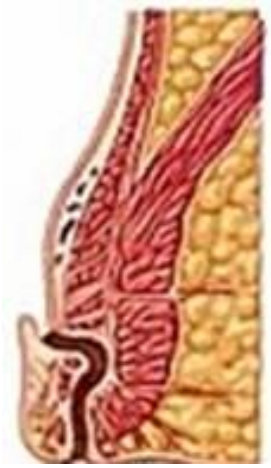
The kshara sutra acts by excision of track and at the same time by cauterization of the hard fibrous tissue around the track and also draining the track properly.

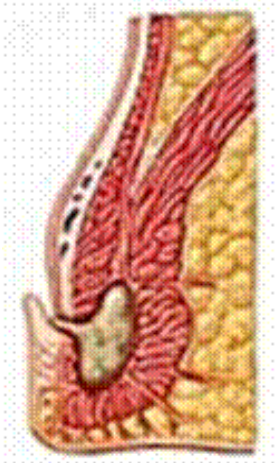
(iv) Varti (Medicated wick)
Sushruta has mentioned varti in bhagandara chikitsa. That varti is prepared by mixing the powders of aragvadha, haridra, agaru with madhu and ghrita. It is used for shodhana and ropana of tracks .

Review of Modern Literature
The Fistula-in-ano is an abnormal communication between the anal canal and the perianal skin. It usually results from an ano-rectal abscess, which burst spontaneously or opened inadequately. It is a disease for which operative procedures have been advocated and practiced by the surgeons from various times. Even the ancient texts in medical literature are full of various surgical measures employed at some time or the other for treating the disease.

Pathogenesis of Fistula-In-Ano Explained By Buie
I - Stage of Infection
II - Stage of Burrowing
III - Stage of Abscess formation
IV - Stage of formation of secondary opening


STAGE OF BURROWING


STAGE OF ABSCESS


STAGE OF SECONDARY OPENING

Identification of Internal Opening

1. Goodsall's rule is very important to assess the internal opening. It is explained as follows:
2. Draw an imaginary transverse line through the central portion of the anus. An external opening anterior to this line indicates that tracks run directly to the internal opening in the same quadrant of anal canal. An external opening posterior to this line indicates that the track runs in a curved course to internal opening in posterior midline. An exception to this rule is an external opening situated beyond a radius of 3.5 cms from the anus in anterior to the imaginary line. In this case track usually curved and internal opening is situated posteriorly in the midline.
3. A cord like thing may be palpable on digital examination beneath the skin between the secondary opening and anal wall.
4. Pressure applied on perianal tissues around the track with the proctoscope in situ, a drop of pus may appear at internal opening.
5. A flexible probe may be used through external opening to detect the internal opening**.**

Classification of Fistula-In-Ano

A number of authors have made significant contributions to the study of classification of fistula-in-ano. The modern concept of fistula-in-ano is based on its anatomical landmarks.

Table 6: Comparison of Classifications of Fistlulae in Anal Region.

Milligan Morgan's (1934) and Goligher (1975)	Park's (1976)
Subcutaneous (5%)	Scarcely recognized
Low anal (75%)	Low intersphincteric
High anal (8%)	Transsphincteric
Anorectal (7%)	
Ischiorectal or Infralevator	Transsphincteric with highblind infralevator extension
Pelvirectal or supralevator	Trans or Suprasphincteric with blind supralevator extension.
Submucous(or high intermuscular) (5%)	Extrasphincteric

Park's Classification Of Fistula-In-Ano And Its Management

Park's classification of fistula-in-ano gives an accurate description of the anatomical course of the fistulous tracks.

1) Intersphincteric Fistula: This type of fistula occurs between the external and internal sphincters. This is the commonest of all types and is the intermediary form which leads to most of the other kinds of fistula.

2) Transsphincteric Fistula: The fistula passes through both the internal and external sphincters.

3) Suprasphincteric Fistula: This type of fistula starts in the intersphincteric plane in the mid-anal canal and then passes upward to point above the puborectalis. This track runs lateral over the muscles and downwards between the puborectalis and the levator ani muscle into the ischiorectal fossa involving the entire sphincter.

4) Extrasphincteric Fistula: A transsphincteric fistula with a high extension may burst spontaneously into the rectum. The fistula has two factors causing its perpetuation. First, the focus of disease is in the anal canal (i.e., the chronic infection of the anal gland in the intersphincteric plane) and second, the constant contamination of rectal opening by high interluminal pressure

Symptoms

The most frequent presenting complaints of patients with an anal fistula are swelling, pain and discharge. They are usually associated with abscess when the external or secondary opening is closed. Discharge may be from the

external opening or may be reported by the patient as mucus or pus mixed with the stool. The majority of patients with fistula have a history of abscess.

Management

(1) Non-Surgical Management: It includes the injection of irritant chemicals into the fistulous track such as 4% silver nitrate, bismuth paste and combination of quinine and urethane is used. As it has high rate of disadvantages like reoccurance inflammation and necroses of the surrounding tissue it is not practice. Now surgical practice is main stay of the treatment.

(2) Surgical Management: All the operative techniques, however can be grouped under two broad categories namely, Fistulotomy and Fistulectomy.

(i) Fistulotomy: It includes incision of the track laying open followed by the curettage of underlying tissue. Recurrence occurs due to remnants of abscess cavity, necrotic or fibrosed tissue.

(ii) Fistulectomy: It involves the total excision of the track with surrounded unhealthy tissue. It causes very wide wound and it heals from top causing a tunnel and recurrence.

DISCUSSION AND CONCLUSION

The description of bhagandara pidika clearly shows that Acharya's had an exact idea regarding the occurrence of a fistulous abscess and also knew that not all abscesses in this region lead to the causation of fistula-in-ano. Painful reddish pidika which occur within two angulas i.e, approx. two inches, around the guda due to vitiated doshas and **dooshita rakta** and **mamsa** dhatus, on suppuration this pidika bursts out side to the surface or inside into the anal canal to discharge different types of sravas is called as bhagandara.

Current evidence suggests that infection of anal glands is probably the most common cause of fistulous abscess. The fascinating fact is that Acharya Charaka and Vagbhatta were discerned about the fact that Microbes has a great role for occurance of fistula in ano.

Acharya Charaka enumerated it as 'Krimi' to be cause of bhagandara . Charaka has also registered a clear-cut description of krimi in Viman Sthana .While describing Raktaja krimis he has outlined that some of the Raktaja krimis are invisible due to their minuteness (Ch.vi.7/11). Acharya Vagbhatta also followed the same view by citing krimi as harmful and invisible as a nidan of bhagandara.

About classification: Sushruta has described different types of bhagandara and it is very essential to explain and understand Sushruta's classification of bhagandara with present modern knowledge.

1. Shataponaka bhagandara means a fistula which has multiple openings like a sieve and can be compared as anal fistula with multiple openings.
2. In Ushtragreeva bhagandara, Sushruta has mentioned that colour of pidika (Abscess) is red, thin and raised like the neck of camel. After bursting of pidika leads to formation of long linear track looks like camel's neck. It can be compared with trans-sphincteric fistula.
3. Parisravi bhagandara, the word itself denotes continuously discharging nature of the sinus, it may be classified under fistula with big cavities associated i.e, involved ischiorectal fossa with complaints of itching and lubricous persistent discharge. Usually, the track takes long horizontal or high rectal course.
4. In Shambukavarta, Sushruta has mentioned that the pain is like waves in purna nadi shambukavarta, but later authors have clarified that the pathway of track looks like Shambukavarta. Madhavakara has described that the shape of pidika resembles like Gostanakara i.e. a huge indurated abscess resembling a big convex protruding surface. It can be compared to curved high rectal fistula with horse shoe type.
5. Unmargi bhagandara caused by abhighata(trauma) and there is no doshic involvement, in early stage. It is an internal sinus caused by tearing of the mucous membrane of anal canal whether by bone piece or hard scabaloids of stool and contact of infectious substance promotes the suppuration and formation of sinus and fistula.
6. In Parikshepi bhagandara, track surrounds the guda as the trench around the fort. This seems to be a horseshoe ischiorectal fistula.
7. In Riju bhagandara, fistulas arise from the anterior half of the anal canal with straight track in nature.
8. In Arsho bhagandara, infection of sentinel pile develops at the lower end of the fissure at the anal verge and may lead to the formation of a superficial fistula i.e, both piles and fistula are present in the same patient.

Regarding Examination

Acharya Sushruta has given a well description regarding the generalised examination of patients Darshan, Sparshan, Prashna where all the entities of examination procedure come together. Moreover, in case of fistula in ano, Sushruta and Vagbhata has presented special type of examination procedure i.e, probing of fistula by Eshani yantra. The art of probing was well mastered by the surgeons of that time owing to which they classified fistula scientificially into blind external(pracheen) and blind internal(arvachina).

Goodsall`s rule, though often is often is spoken vividly regarding the identification of internal opening. But it should be aasumed that goodsall`s rule can only provide information about the probable location of internal opening, the previous researches also has concluded that the predictive accuracy of goodsall`s rule was 49% in fistula in the anterior commisure and 90% in assessing the internal opening of the fistula of the posterior commissure. (Circco and Reilly 1992).

Proctoscopy, though are used in some cases, it rarely can visualize the position of the internal opening, due to the narrow opening of the instrument. Fistulogram provides a great value in diagnosis of complicated fistula i.e, high anal, low anal with high branches etc.

Acharya Sushruta has mentioned different types of probes (eshani) which were used in that time i.e, Gandupada, Sarpaphana, Sharapunkha, and Badishmukhi etc. This revealed that probing was a great practice in ancient India. Sushruta himself confessed that length & size of the eshani is depending on the necessity of the surgeon, who is going to operate the case.

Regarding Treatment

Sushruta has described several types of treatment i.e. Medical, Surgical and Parasurgical. But he has given elaborate description of surgical management because bhagandara is mainly a surgical disease. He advised different types of incisions in the surgical management of various types of bhagandara as described earlier in ayurvedic review. At present the operative methods is divided into two broad groups:

a) Fistulectomy
b) Fistulotomy

In fistulectomy, the fistulous track is dissected from all sides and complete track is excised out. Whereas in fistulotomy the track is just laid open and left it to heal spontaneously.

Sushruta has emphasized that greater the chronicity, harder the path of management of the disease. Thus has cautioned the treatment has to be planned at the earliest. Hence he has given the importance of incision and drainage in an abscess and if fistula has formed then treat the fistula-in-ano with chedana followed by kshara karma.

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