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## A Classical Review On *Bhagandar* (Fistula in ano)

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### ABSTRACT

The complete and holistic description of *Bhagandar* (Fistula in ano) has been explained in classical *Ayurvedic* texts. It is a common disease in the anorectal region. The Father of the Surgery, *Acharya Sushruta*, includes this disease under *Ashtamahagada*. At first it appears as a *pidika* around guda and when it bursts, it is called *Bhagandara*. *Bhagandar's* clinical features described in *Ayurvedic* texts perfectly resemble that of 'Fistula in ano'.

Due to recurrence the treatment is very difficult. In modern surgery, various treatment methods are available for the treatment of fistula in ano. Treating fistula in ano is a big challenge to the proctologists. In addition to the various treatment modalities available, *Ksharasutra* has been known to be more effective among all *Ayurvedic* parasurgical procedures in treating Fistula in ano. *Ksharasutra* has been shown to be more effective therapy. Fistula in ano induces discomfort and pain in performing day-to-day activities. In this review, the article describes the pathophysiology, methods and treatment options for Fistula in ano both in *Ayurveda* and Western Medical sciences

**Keywords** - *Bhagandar*, *Fistula in ano*, *Ksharsutra*, *Ashtamahagada*.

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## INTRODUCTION

Bhagandar is a severe anorectal disorder. *Acharya Sushruta*, the Father of Surgery, has included this disease as one of the *Ashtamahagada*<sup>1</sup>. The word AshtaMahagada in *Ayurveda* is used to indicate the eight diseases that are *Asadhya* in nature<sup>2</sup>. In this article, we have tried to compile all the scattered descriptions of *Bhagandar* available in various *Ayurvedic* texts, such as *Sushrut Samhita*, *Chakradatta*, *Charak samhita*, *Vagbhat*, *Bhaishajya ratnavali*, *Rastarangini* etc. and also incorporated the available common modern surgical description. The most scientific description of *Bhagandar* is given in *Sushrut Samhita*, a textbook of Ancient Indian Surgery written in about 1000 B.C. by Sushruta, the Father of Surgery. In addition, *Bhagandar* is described in under *Ashtamahagad*, i.e. eight diseases which are difficult to treat. The Definition, Etiology, Symptoms, Pathogenesis as per *Shatkriyakal*), Prodromal Characteristics, Clinical characteristics, Clinical definitions based on examination stage wise management and even the complications of *Bhagandar* (Fistula) were explained perfectly by *Sushruta*. It may be correlated with Fistula in ano as described in Western medical science. Fistula-in-ano is an inflammatory tract ,which has an external opening (secondary opening )

in the peri anal skin and an internal opening (primary opening ) in the anal canal or rectum .This tract is lined by unhealthy granulation tissues and fibrous tissue <sup>3</sup>. that opens deeply into the anal canal or rectum and superficially into the skin around the anus. At present, the most common surgical procedure used in the treatment of fistula in ano are fistulectomy and fistulotomy.the other treatment methods which are used for management of fistula in ano are Anal Fistula Plug , fibrin Glue ,VAAFT( Video Assessed Anal Fistula Treatment ) ,LIFT (Ligation of inter sphincteric fistula tract) and *ksharsutra* ligation therapy ( *Ayurvedic* cutting Seton ) with varied prognosis .*Ksharsutra* procedure in the present time is very effective because this procedure is simple ,easy ,safe ,feasible and equally effective in the management of fistula in ano as compared to other surgical techniques <sup>4</sup> . The surgical management carries risk of several complications like frequent damage to the sphincteric muscle resulting in loss of sphincteric control ,fecal incontinence soiling ,rectal prolapsed , anal stenosis ,delayed wound healing and even after complete excision of the tract there are chances of sub subsequent

recurrence. Ancient *Acharyas* have also described surgical parasurgical procedures and medical treatment for *Bhagandara*. *Ksharsutra* is unique and an established procedure for *Bhagandar*. *Acharya Chakradutta* has given the idea about the preparation of *Ksharasutra*<sup>5</sup>. Revival of such ancient technique in the management of fistula in ano has proved as a boon for humanity.

### **Definition of *Bhagandar* (fistula ) in *Sushrut samhita*-**

The *Daran* of *Bhaga Guda* and *Vasti* with surrounding skin surface is called *Bhagandar*. Further he has identified that a deep rotating *apakva pidika* with *Guda Pradesh's* two angular circumference associated with pain fever called *Bhagandar pidika*. When it suppurates and burst open is called *Bhagandar*<sup>6</sup>.

### **Definition of fistula in modern texts -**

Fistula in ano ,or anal fistula is a chronic abnormal communication ,usually lined to a certain extent by unhealthy granulation tissue , which runs outwards from the Anorectal lumen ( The internal opening ) to an external opening on the skin of the perineum or buttock ( or rarely in women to the vagina)<sup>7</sup> or

Fistula-in-ano is an inflammatory tract ,which has an external opening (secondary opening ) in the peri anal skin and an internal opening (primary opening ) in the anal canal or rectum .This tract is lined by unhealthy granulation tissues and fibrous tissue<sup>8</sup> .

**The heading by Pathogenesis mentioned in *Ayurved* -** *Sushrut* has beautifully described the pathogenesis of *Bhagandar*. When a person indulges in *Mithya Ahar-Vihar* (unsalutary lifestyle and eating habits), *Vata* is aggravated and get localized in the anal canal. In addition, it vitiates the muscle and blood giving rise to *pitika* (boil) and if this condition is not treated in time. ,this *pitika* (boil ) suppurates and bursts resulting in a discharging track which is known as "*Bhagandar*"<sup>9</sup>.

***Charak samhita* -** *Charak* has described pathogenesis of *Bhagandar* in very practical way . As per *Charak samhita* etiological factors like *krimi Bhakshan* , *Asthi kshanan* ,*Pravahan* ,*Utkataasan* and Horse riding vitiates the *Doshas* and a Boil to form the perianal region which after Suppuration bursts open to transform into a *Bhagandar*<sup>10,11</sup>.

***Astang Samgraha*-** *Acharya Vagbhata* listed few distinct triggers of *Bhagandar* such as long-term riding on an elephant or horse, sitting on hard surfaces, squatting Posture, maturing past life sinful actions and abusing ascetics etc. Here, *Vagbhata* has added as a causative factor two very distinct causative factors. The exact reason for the inclusion of the maturing of the sinful acts of previous lives & abusing ascetics is not understood but we can consider this as indulging in indecent activity by a non-self possessed person causing vitiation of *doshas*<sup>12</sup>.

### **Pathogenesis mentioned in *Vagbhata samhita***

Pathogenesis begins with indulgence in above-mentioned factors causing blood & muscle tissue vitiation in the rectum followed by ulcer formation

(*Vran*), preceded by *pitika* (Eruption / Boil) in *Bhagandar*.). This condition if not treated properly turns to discharging opening either to interior or exterior around perianal region .<sup>13,14</sup>

**Classification of *Bhagandar* according to Ayurved-** According to *Ayurveda* classification depends on vitiated *Doshas*, consistency of discharge ,the smell, the number of openings ,and their course or anatomical appearance.

***Sushruta Samhita-*** Five types of *Bhagandar* are mentioned in *Sushruta Samhita* –

- 1) ***Shatponak (Vataja)*** resembles with fistula having multiple openings.

- 2) ***Ushtagreev(Pittaja)*** resembles curved Fistula resembling the neck of camel.
- 3) ***Parisraavi (Kaphaja)*** resembles fistula with big cavity and profuse discharge .
- 4) ***Shambukavart ( Sannipataja)*** is fistula resembling with horse shoe.
- 5) ***Unmargi ( Kshataja)*** can be treated like fistula caused by trauma. Further, *Sushruta* has advocated that *Vataj, pittaja* and *Kaphaja* type of *Bhagandar* are *Kashtsadhya* ( difficult to treat) whereas , *Sannipataj* and *Aagantuj* are *Asadhya* ( non curable)<sup>15,16</sup>.

No.	Type	Dosha
1.	<i>Shatponak</i>	<i>Vataj</i>
2.	<i>Ushtagreev</i>	<i>Pittaj</i>
3.	<i>Parisraavi</i>	<i>Kaphaj</i>
4.	<i>Shambukavart</i>	<i>Sannipataj</i>
5.	<i>Unmargi</i>	<i>Kshataj</i>

***Charak Samhita-*** *Charak* has mentioned five type of *bhagandar* *Vataj,Pittaj, Kaphaja ,tridoshaj* and *Kshataj Bhagandar*<sup>17</sup>.

***Vagbhata samhita-*** *Vagbhata* has mentioned eight types of *Bhagandar* viz *Shatponak (Vataja), Ushtagreev(Pittaja),Parisravi(Kaphaja),Parikshepi(Vata–Pittaja),Shambukavarta(Tridoshaj) and Unmargi or Kshataj Bhagandar and Arshobhagandar* <sup>18</sup>.

**Classification of Fistula in modern texts** – There are many classifications available in modern texts viz. Milligan & Morgan and Goligher’s classification

Ernst mile’s classification, MelcheorGoz classification ,Steltzne’s classification and Park’s classification .However Malligan & Morgans’s Goligher’s classification is more applied .

**Low level Fistula-** Low level fistula open in to the anal canal below the ano rectal ring .They are further subdivided into Subcutaneous, submucosal, intersphincteric, transphincteric and suprasphincteric fistula .

**High level Fistula-** High level fistula open in to the anal canal at or above the anoctal ring .They are

further sub divided into Extrasphincteric or Supralelevator, Transsphincteric & Pelvi-rectal fistula<sup>19</sup>.

No.	Low level Fistula	High level Fistula
1.	Subcutaneous type	Extrasphincteric
2.	Submucous type	Transsphincteric
3.	Intersphincteric type	Pelvi-rectal
4.	Transsphincteric type	
5.	Suprasphincteric	

**Clinical features-**

Palpable induration between external opening and internal opening (anal canal) .Swelling ,pain and discharge are the most frequent presenting complaints . Swelling and pain are usually associated with abscess when the external opening is closed .The discharge from external opening is mucous or pus mixed with stool .In majority of cases of fistula in ano there will be an antecedent history of previous abscess<sup>20</sup>.

**Treatment of Bhagandar as mentioned in Ayurveda-**

**Sushruta Samhita-** Acharya Sushruta has beautifully described the stage of wise treatment of *Bhagandar*. In the unripe stage one should follow "*Apatarpan to Virechan*" measures of *vra*na Chikitsa and once the *pitika* (Boil) has reached the ripening stage *Snehan, Avagah Swedan* (oil and foment) of the perianal region should be practiced. Further, if *Pitika* does not resolve , the exploration of the track (fistulotomy ) is done & then *Kshar* should be applied or *Agnikarma* should be done.

Postoperatively for pain management *Yashtimadhu tail* or *Anu tail sinchan* (irrigation of medicated oils over the ulcerative lesion) and *swedan* (fomentation/Sitz bath)is advised to the patient. In the chronic and recurrent condition where the fistula track is partially fibrosis or the track is not patent ,*Bhagandar nasahan tail* can be irrigated through the fistulous track to make the track patent . This can also be done in those who are not willing undergo surgery <sup>21</sup>.

Further in *Visarp Nadi Rog Chikitsa Sthan* chapter of *Sushrut Samhita* ,it has been described that those patients who are not willing or not fit for surgery ,*Nadivran* can be treated with *Ksharsutra*.Furthermore in this context *Acharya Sushrut* has quoted that *Bhagandar* can be also treated with the same *Ksharsutra* <sup>22,23</sup>.

**Charak samhita-**

*Acharya charak* has described treatment of *Bhagandar* in *Shvayathu chikitsa* chapter in the context of *Bhagandar chikitsa* . *Charak* has quoted that if the *Pidika* (Boil) does not subside by its own

,Purgation should be given to the patient.Further Fistulous track should be explored with the help of probe .Ulcer bed should be cleansed & cauterization should be done with hot oil & then shall be treated like *vran* (Ulcerative lesion ), However in chronic cases ,Fistulous track should be excised with ‘ *Ksharsutra* ’. Ligation and wound management should be done<sup>24</sup>.

### **Chakradata-**

The treatment of *Bhagandar* is mentioned in the chapter called *Bhagandar chikitsa* the *kriya* sutra described in *Chakradata samhita* is as follows;

**Apakwa (Un-ripened abscess) Stage** – As soon as anal swelling is detected, it should be dried and cleaned (*Shodhan Karma*). Patient should be kept on 'Apatarpan' 'eg.Patient is kept on light diet & is purgated bloodletting is performed so that it does not suppurate *Vatpatradi lep* should be applied over the affected site.

**Pakwa ( Suppurative abscess) Stage** – Once the *Pidika* (boil) has achieved *Pakwa* stage (suppuration) ,exploration of the track should be done with the help of Fistula Probe .After, Fistulotomy *Kshar* should be applied or *Agnikarma* should be done in explored site.In the chapter “*Nadi vran chikitsa*” where utility of *Ksharsutra* is mentioned for exploration of *Nadi Vran* (sinus ). Based on the same principle *Chakradata* has advocated use of *Ksharsutra* in the management of *Bhagandar* also<sup>25</sup>.

### **Vagbhata samhita-**

According to the stages *vagbhata* has also described

1 ) **Pitika (Un-ripened abscess) stage** - *Pitika* (Un-ripened abscess) stage–Effective treatment including *Panchkarma* such as *Vaman* (inducing emesis), *Virechan* (inducing purgation) and *Raktamokshan* (bloodletting) may be used to suppress induration.

2) **Pakwa( Ripened abscess) Stage-** In *pakwa* awastha ( ripened stage ) , incision and Drainage of *Pakwa vranashodh* followed by application of *Kshar* or *Agnikarma* at the bed of explored track is mentioned.

*Parikshepi Bhagandar* (high anal complex fistula)- In *parikshepi* type of *Bhagandar* (high anal complex Fistula), in this form of fistula discovery fistula track by *Ksharsutra* ligation. This is the only available direct classical text reference,which directs to use *Ksharsutra* for fistula ablation<sup>26</sup>.

*Vagbhat* has advocated that patient who denies surgery or who is not fit for surgery , In those cases ,exploration of sinus can done with the help of *Ksharsutra* and same *Ksharsutra* can be use to explore fistulous track also. This is described in chapter *Granthi Arbuda Shlipad Apachi Nadi pratisheda Adhyaya*<sup>27</sup>.

### **In Bhaishajya ratnavali text book-**

In *Bhaishjya ratnavali* management of *Bhagandar* is described precisely in chapter ‘ *Bhagandar chikitsa prakaran* as follow ;

**Apakwa stage** – *Vaman*, *Virechan* and *Raktamokshana* are advised.

**Bhagandar stage** –medical preparations such as *Vran varti* of *Snuhi Ksheer*, *Ark Ksheer* and *Daruharidra* can be tested initially *Triphala Kwath vran dhavan* is

advised. Further, *Nishaadyam Tailam* or *Vran Saindhavadi Tail –puran* can be tried locally in *Bhagandar*. Similarly *Narayan ras*, *Saptavinshati Guggulu* or *Saptang Guggulu* are advised orally<sup>28</sup>.

Furthermore in the chapter '*Nadivran chikitsa*' use of *Ksharsutra* for *Bhagandar* treatment and demonstration of *Ksharasutra* application procedure is also mentioned in brief.

### ***Ksharsutra* Application**

The *ksharsutra* embedded probe (similar to a needle with an eye) should be interlocked from the *Bhagandar's* external opening and allowed to follow the track until the internal opening. Furthermore, it is smoothly removed through the anal canal. While doing this, the *Ksharsutra* get placed in the fistulous track and then, two ends of the thread are brought together and tied<sup>29</sup>. Other indications of *Ksharsutra*-pedunculated growth, fibroid, tumor etc.

***Rastarangini***- The *Ksharsutra Nirman* and *Kshar nirman* is mentioned in text book of *Ras Tarangini*<sup>30</sup>.

***Pathyapathya*** - The aim behind advocating *Pathyapathya* for *Bhagandar* patient is to avoid

recurrence of disease. Avoid heavy exercise, Over sexual activity, strenuous work, excessive driving and avoid heavy meal for at least one year after recovery from *Bhagandar*<sup>31</sup>. The main *causative* factors of *Bhagandar* are basically responsible for *Agnimandya*.

**CONCLUSION**- *Bhagandar's* most scientific description is given in the textbook of Ancient Indian surgery in *Sushrut Samhita*. This disease can be correlated with Fistula in Ano, the learned *Acharyas* explained the definition, etiology, type pathology, management and complication. Fistula management in Ano needs a complete understanding of perianal anatomy and pathophysiology. Complete *Ayurvedic* para-surgical procedure *Ksharsutra* remains more effective and acceptable scientific treatment, with a lower recurrence rate and a lower chance of incontinence than modern treatment alternatives. Treatment may come across many difficulties. Fistula in ano still remains a challenge even for meticulous and skillful surgeons. *Ksharsutra* therapy is still the gold standard technique used by *Ayurvedic* surgeons for the treatment of *Bhagandar*. In this article, we tried to compile all the scattered *Bhagandar* description available in different *Ayurvedic* texts and also incorporated modern descriptions.

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