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EXPLORING BHAGANDARA (FISTULA-IN-ANO): CLINICAL UNDERSTANDING AND MANAGEMENT STRATEGIES

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ABSTRACT

The numerous treatment options for fistula in Ano, also known as Bhagandara, are explained in detail in this comprehensive resource. The unpleasant condition known as fistula in Ano is characterized by the formation of an irregular tunnel-like tract in the anal region. This ailment is often the result of untreated anal abscesses. The reasons and signs of Bhagandara are outlined in this abstract, which also stresses the significance of prompt treatment. It outlines a number of treatment alternatives, such as drugs, minimally invasive techniques, Ayurvedic methods like Kshara Sutra therapy, and surgical techniques including fistulotomy and fistulectomy. This guide seeks to equip people with the information necessary to manage fistula in Ano by providing insights into these treatment options.

KEYWORDS - Fistula in Ano, Bhagandara, Treatment options, Anal abscesses, Kshar Sutra.

INTRODUCTION

Sushruta says that the term "bhagandara," which is present in old Ayurvedic books, describes a condition that is similar to Fistula in Ano today. One of the first doctors in Ayurveda, Sushruta was an ancient Indian physician who recorded a wide range of surgical techniques and illnesses in his writings, most notably in the "Sushruta Samhita."

Bhagandara is defined in Sushruta's texts as a disorder characterized by an irregular tract or channel that develops in the anal area. Pus or other fluids may discharge, and pain and

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suffering are frequently linked to this illness. The surgical methods used to treat Bhagandara are described in depth in Sushruta's books, including incision and drainage techniques.^[1]

Ano Fistula, commonly called Bhagandara, is a painful and sometimes crippling medical ailment affecting the anal region. This thorough guide seeks to clarify fistula in ano and offer insightful information about its causes, symptoms, and—most importantly—the variety of treatment choices available to effectively manage this problem.

Fistula in Ano, which is characterized by the development of an irregular tunnel-like tract in the anal area, frequently results from untreated anal abscesses. If these abscesses are not treated appropriately, fistulas may form, which would make the affected people's pain and suffering even worse.

We will explore the complexities of fistula in ano in this guide, looking at the symptoms that people may encounter as well as the causes that contribute to its development. In addition, we will discuss the different treatment modalities, such as Ayurvedic methods like Kshara Sutra therapy and conventional medical treatments, with the ultimate goal of equipping people with the knowledge needed to make decisions about their healthcare journey and manage fistula in Ano.

AIM OF STUDY

The purpose of this research is to present a thorough and educational manual on fistula in Ano (Bhagandara), with an emphasis on its etiology, signs, and many available treatments. This research adds knowledge for both students and researchers.

MATERIALS AND METHODS

What is Fistula in ano?

Fistula in ano, or anal fistula, refers to an abnormal passage that develops between the inside of the anus or rectum and the surrounding skin. It usually arises from an untreated or poorly treated anal abscess, which is a pocket of pus in the anal area. This condition forms a tunnel-like tract that can cause discomfort, pain, and drainage of pus or stool. It requires medical attention for proper diagnosis and treatment to prevent complications and alleviate symptoms.

Anatomy and Pathogenesis^[2]

Understanding the anatomy and pathogenesis of fistula in ano is crucial for a comprehensive grasp of the condition. It commonly originates from an anal abscess, which forms due to

infections in the anal glands, resulting in a collection of pus near the anus. If the abscess does not heal thoroughly or correctly, it may progress into a fistula—a tunnel-like tract. These fistulas can vary in complexity and location, posing diverse challenges in presentation and treatment.

Causes of Fistula In ano^[3]

Typically develops as a result of an untreated or inadequately treated anal abscess. Here are some common causes and risk factors.

- 1. Anal Abscess: The primary cause of fistula in ano is often an anal abscess. This localized accumulation of pus in the anal region results from an infection. Failure to adequately drain or treat an anal abscess can progress to the formation of a fistula.
- **2. Infection**: Infections in the anal or rectal area, including sexually transmitted infections (STIs), can occasionally trigger fistula formation.
- **3. Inflammatory Bowel Disease (IBD)**: Conditions like Crohn's disease and ulcerative colitis, both types of inflammatory bowel disease, heighten the risk of fistula development. These conditions induce chronic inflammation in the gastrointestinal tract, including the anal region, fostering fistula formation.
- **4. Trauma or Injury**: Trauma or injury to the anal region, such as those resulting from anal surgery, childbirth, or accidents, can create a pathway for fistula formation.
- **5.** Chronic Constipation: Persistent constipation and straining during bowel movements can elevate the likelihood of developing anal fissures, small tears in the anal lining. These fissures are susceptible to infection and may progress to form a fistula.
- **6. Prior Anal Surgery**: Previous surgical interventions in the anal area, such as hemorrhoid surgery or procedures for other conditions, may occasionally contribute to fistula development.
- **7. Genetic Factors**: While less common, genetic predisposition may play a role in some cases of fistula development.

Symptoms and Clinical Presentation of Fistula In Ano.

1. Pain and Discomfort: Persistent pain and discomfort in the anal region are hallmark symptoms of fistula in ano. The pain may worsen during bowel movements or when sitting.

- **2. Discharge of Pus or Fluids**: The presence of pus or other fluids draining from an opening near the anus is a characteristic symptom of fistula in ano. This discharge may have a foul odor.
- **3. Itching**: Itching around the anus is common in individuals with fistula in ano and may be accompanied by irritation.
- **4. Redness and Swelling**: Inflammation of the skin around the anus can lead to redness and swelling, contributing to discomfort and pain.
- **5. Bleeding**: Some individuals with fistula in ano may experience bleeding, particularly during bowel movements. The bleeding is typically minor but may be persistent.

Diagnosis Methods^[4]

The diagnosis of a fistula in ano typically involves a combination of clinical evaluation and, in some cases, imaging studies to determine the extent and characteristics of the fistula. Here are the main diagnostic methods used to diagnose a fistula in ano.

1) Physical Examination

The initial step in diagnosing a fistula in ano is a thorough physical examination by a healthcare professional. During this examination, the doctor will.

- Inspect the anal and perianal area for any external openings or signs of infection, such as redness, swelling, or tenderness.
- Perform a digital rectal examination (DRE) by inserting a gloved finger into the rectum to feel for the presence of a fistula tract or other abnormalities in the anal canal.

2) Probing

A small probe or specialized instrument may be gently inserted into any external openings or drainage points near the anus to trace the path of the fistula tract. This helps the healthcare provider determine the direction and depth of the fistula.

3) Imaging Studies

- Ultrasound: Transrectal ultrasound can provide detailed images of the anal canal and perianal region. It is often used to assess the extent of the fistula tract and its relation to nearby structures.
- Magnetic Resonance Imaging (MRI): MRI is a highly effective imaging modality for evaluating fistulas in ano. It provides clear images of the fistula tract, its branches, and

any associated complications. MRI is particularly valuable for complex or high intersphincteric fistulas.

• **Fistulography:** Fistulography is a diagnostic procedure in which a contrast dye is injected into the fistula tract. X-rays are then taken to visualize the path of the dye, helping to map the fistula's course. While this method is less commonly used today, it can still be employed in certain cases.

4) Colonoscopy or Sigmoidoscopy

If there is suspicion of underlying inflammatory bowel disease (IBD), such as Crohn's disease, a colonoscopy or sigmoidoscopy may be performed to examine the lining of the colon and rectum for signs of inflammation or fistula tracts.

5) Endoanal or Endorectal Ultrasound

In some cases, specialized ultrasound probes may be used to provide detailed images of the anal canal and the structures surrounding it, aiding in the diagnosis and evaluation of fistulas.

The choice of diagnostic method may vary depending on the individual patient's condition and the suspected complexity of the fistula. A combination of clinical evaluation and appropriate imaging studies is often used to accurately diagnose and plan the treatment of a fistula in ano.

MODERN TYPES OF FISTULA IN ANO^[5]

Fistula in ano is a complex condition, and there are several types based on their anatomy, characteristics, and location. The classification of fistulas helps in determining the most appropriate treatment approach. Here are some common types of fistulae in ano.

1) Intersphincteric Fistula

This is the most common type of fistula in ano and occurs in the space between the internal and external anal sphincters. It often presents with a relatively simple path, making it more straightforward to treat.

2) Transsphincteric Fistula

This type of fistula traverses through one or both of the anal sphincters, the muscles that control bowel movements. Transsphincteric fistulas are more complex than intersphincteric ones and may require specialized surgical techniques.

3) Suprasphincteric Fistula

Suprasphincteric fistulas originate above the sphincter muscles, pass through the upper part of the anal canal, and exit through the perianal skin. These are relatively rare but tend to be more complex and require careful evaluation.

4) Extrasphincteric Fistula

These fistulas are the least common and often the most challenging to treat. They originate outside the sphincter complex and may travel long distances, sometimes involving adjacent structures such as the rectum or vagina.

5) Horseshoe Fistula

In this type, the fistula tract extends around the anus, forming a horseshoe-like shape. Horseshoe fistulas can be challenging to treat due to their complex anatomy.

6) Blind Fistula

A blind fistula is a type that has only one opening, either inside the anal canal or externally. It does not form a complete tunnel. Treatment options depend on the location and characteristics of the opening.

7) Recurrence or Complex Fistula

Some individuals may develop recurrent fistulas or have fistulas that do not fit neatly into one of the standard categories. These cases often require a personalized treatment approach.

8) Cryptoglandular Fistula

These fistulas are typically associated with anal gland infections and abscesses. They are the most common type and often arise as a result of an untreated anal abscess.

It's important to note that the type and complexity of the fistula play a significant role in determining the most suitable treatment approach. Treatment may involve surgical procedures like fistulotomy, fistulectomy, seton placement, or other minimally invasive techniques, depending on the specific characteristics of the fistula. Consulting with a healthcare provider or a specialist is essential for proper diagnosis and treatment planning.

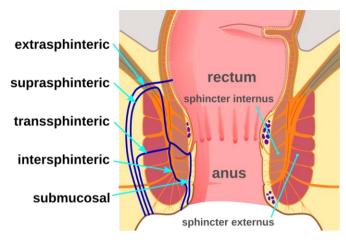


Image 01 – Types of fistula in ano.

AYURVEDIC TYPES OF BHAGANDARA[6,7]

1) Vataj Bhagandara: (By Charak samhita)

This type of Bhagandara is primarily associated with the imbalance of the Vata dosha. It often presents with symptoms such as severe pain, dryness, and a tendency for the condition to worsen during bowel movements. Treatment for Vataj Bhagandara aims to balance the Vata dosha through dietary modifications, herbal remedies, and lifestyle changes.

2) Pittaj Bhagandara: (By Charak samhita)

Pittaj Bhagandara is related to an aggravation of the Pitta dosha. It is characterized by symptoms like burning sensations, inflammation, and increased body temperature around the affected area. Ayurvedic treatments for this type typically involve cooling herbs, dietary adjustments to reduce heat, and therapies to pacify Pitta.

3) Kaphaj Bhagandara: (By Charak samhita)

Kaphaj Bhagandara results from an imbalance in the Kapha dosha. Symptoms include swelling, a feeling of heaviness, and discharge with a foul odor. Treatment focuses on reducing Kapha through dietary choices, warming herbs, and therapies to improve digestion.

4) Sannipatik Bhagandara: (By Charak samhita)

This type of Bhagandara involves an imbalance of all three doshas: Vata, Pitta, and Kapha. It is considered more complex and challenging to treat. The symptoms can vary, and treatment requires a comprehensive approach that aims to balance all three doshas through specialized Ayurvedic therapies and a tailored diet.

5) Shatponaka Bhagandara (By Sushruta Samhita) - Vataj

Shatponaka Bhagandara is a specific type of fistula in Ayurveda characterized by a condition resembling an ulcer with multiple openings. It is associated with severe pain and discomfort. Ayurvedic treatment for Shatponaka Bhagandara focuses on addressing the underlying dosha imbalances and promoting healing through herbal remedies and lifestyle adjustments.

6) Ushtragreeva Bhagandara (By Sushruta Samhita) - Pittaj

Ushtragreeva Bhagandara is a type of fistula in Ayurveda named after its appearance, resembling the neck of a camel. It presents with a single opening and can be complex. Ayurvedic treatment for Ushtragreeva Bhagandara involves balancing doshas, improving digestion, and using herbal remedies and therapies to address the condition and promote healing.

7) Parisravi Bhagandara (By Sushruta Samhita) - Kaphaj

Parisravi Bhagandara is a specific type of fistula in Ayurveda characterized by multiple openings around the anus and the appearance of grape-like clusters. It is a complex condition associated with significant discomfort. Ayurvedic treatment for Parisravi Bhagandara aims to balance doshas, improve digestive health, and employ herbal remedies to address the condition and promote healing.

8) Shambukavarta Bhagandara (By Sushruta Samhita) - Tridoshaj

Shambukavarta Bhagandara is a unique type of fistula in Ayurveda characterized by the presence of numerous small openings resembling the head of a mushroom or an umbrella. This complex condition can be challenging to manage, and Ayurvedic treatment focuses on dosha balance, herbal remedies, and specific therapies to promote healing and alleviate discomfort.

9) Unmargi Bhagandara (By Sushruta Samhita) - Agantuja

Unmargi Bhagandara is a specific type of fistula in Ayurveda, recognized for its complex nature. It involves irregular and unpredictable tracts, making it challenging to diagnose and treat. Ayurvedic treatment for Unmargi Bhagandara emphasizes dosha equilibrium, dietary modifications, and specialized therapies to address the condition and alleviate symptoms.

10) Parikshepi Bhagandara (By Astanga Samgraha) - vata and pitta

Parikshepi Bhagandara is a type of fistula in Ayurveda characterized by a single, hidden opening near the anus. It often presents diagnostic challenges due to its concealed nature. Ayurvedic treatment for Parikshepi Bhagandara involves careful examination, dosha balance, and specific herbal remedies and therapies to address the condition and promote healing.

11) Ruju Bhagandara (By Astanga Samgraha) - vata and kapha.

Ruju Bhagandara is a type of fistula in Ayurveda characterized by extreme pain and discomfort, often accompanied by a persistent foul odor. Ayurvedic treatment for Ruju Bhagandara focuses on dosha balance, detoxification, and specialized herbal remedies to alleviate pain, address the condition, and promote healing for the affected individual.

12) Arsho-bhagandara Bhagandara (By Astanga Samgraha) - Pitta and kapha.

Arsho-bhagandara Bhagandara is a specific type of fistula in Ayurveda that occurs in association with hemorrhoids or piles (Arsha). It involves a connection between an anal fistula and a hemorrhoidal vein, causing additional discomfort. Ayurvedic treatment for Arsho-bhagandara Bhagandara addresses both conditions simultaneously, aiming to balance doshas and promote healing.

TREATMENT OPTIONS

Ayurvedic Treatment Options of Bhagandara^[8]

Ayurvedic treatment options for Bhagandara (anal fistula) focus on balancing doshas, promoting healing, and alleviating discomfort. These treatments are tailored to the specific type and characteristics of Bhagandara. Here are some Ayurvedic treatment options.

Kshara Sutra Therapy

This is a widely used and effective Ayurvedic treatment for Bhagandara. It involves inserting a medicated thread (Kshara Sutra) into the fistula tract. Over time, the thread cuts and heals the tract, promoting tissue regeneration and closure.



Image 02 – Kshar sutra treatment.

Dietary Modifications

Ayurvedic practitioners often recommend dietary changes to address underlying dosha imbalances. This may include consuming foods that are cooling (for Pitta imbalances), warming (for Vata imbalances), or light and easily digestible (for Kapha imbalances).

Herbal Remedies

Ayurvedic herbs like Triphala, Neem, Turmeric, and Haritaki are used for their antiinflammatory and healing properties. These herbs may be taken internally or used topically in the form of pastes or ointments.

Panchakarma

Panchakarma is a series of Ayurvedic detoxification procedures that can help cleanse the body and promote healing. Treatments like Basti (enema therapy) and Virechana (purging therapy) may be recommended to remove toxins and balance doshas.

Yoga and Pranayama

Yoga and Pranayama (breathing exercises) can aid in improving overall health and strengthening the body. Specific yoga asanas can also be beneficial in managing pain and discomfort associated with Bhagandara.

Lifestyle Modifications

Ayurvedic principles stress the importance of a balanced daily routine. This includes practices like maintaining proper hygiene, getting adequate rest, and managing stress.

Triphala Wash

Triphala, a combination of three herbs, can be used to prepare a wash for the affected area. This can help cleanse the wound and promote healing.

External Applications

Ayurvedic oils and pastes, such as Guggulu-based ointments, may be applied externally to reduce inflammation and discomfort.

Consultation with an Ayurvedic Practitioner

Treatment plans for Bhagandara should be personalized and carried out under the guidance of a qualified Ayurvedic practitioner. They can assess the individual's constitution (Prakriti) and customize the treatment accordingly.

Modern Treatment option for Fistula in ano^[9]

Modern treatment options for fistula in ano focus on effectively managing the condition, providing relief from symptoms, and preventing recurrence. The choice of treatment depends on the type and complexity of the fistula. Here are some modern treatment options.

Fistulotomy

This is a common surgical procedure for treating simple or low-level fistulas. It involves making an incision along the fistula tract to open and drain it. The wound is left open to heal from the inside out.

Fistulectomy

In cases where the entire fistula tract needs to be removed, a fistulectomy is performed. This surgical procedure is more extensive and involves cutting out the entire fistula.



Image 03 – Fistulectomy.

Seton Placement

A seton is a piece of thread or rubber band that is placed through the fistula tract. It allows for continuous drainage and gradual healing. Setons are often used for complex or high-level fistulas.

Fibrin Glue Injection

This minimally invasive procedure involves injecting fibrin glue into the fistula tract to seal it. It is used for certain types of low-level fistulas and offers a less invasive alternative to traditional surgery.

LIFT Procedure (Ligation of the Intersphincteric Fistula Tract)

The LIFT procedure is a minimally invasive technique that involves tying off the intersphincteric fistula tract to promote healing. It is suitable for certain types of fistulas.

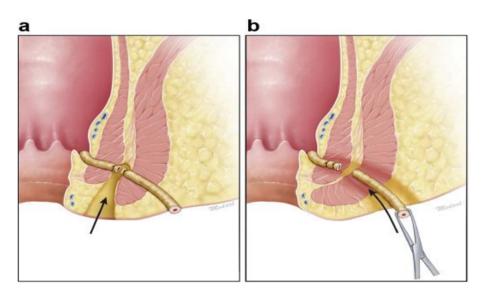


Image 04 – LIFT Procedure.

Biologic Therapy

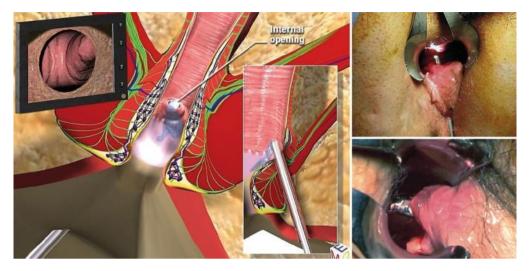
In some cases, biologic medications such as infliximab or adalimumab may be prescribed to manage fistulas associated with inflammatory bowel disease (IBD).

Radiologic Interventions

Some specialized radiologic procedures, such as endorectal ultrasound-guided drainage or placement of a drainage catheter, may be used to manage certain types of fistulas.

Video-Assisted Anal Fistula Treatment (VAAFT)

VAAFT is a minimally invasive procedure that uses a small camera to visualize and treat the fistula. It can be used for selected cases.



Plugs and Sealing Devices

Synthetic plugs or biologic plugs can be used to block the internal opening of the fistula tract and promote healing.

Laser Therapy

Laser ablation is a newer technique that uses laser energy to close the fistula tract. It is less invasive than traditional surgery.

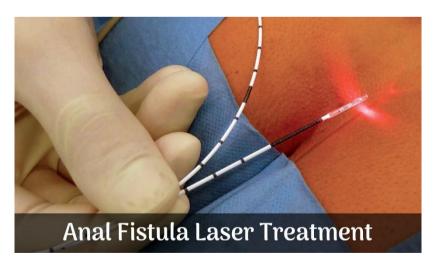


Image 05 – Laser For Fistula in ano.

Advancement Flap Surgery

In this procedure, healthy tissue is used to create a flap that is placed over the internal opening of the fistula to close it.

Colonoscopy or Sigmoidoscopy

These procedures may be performed to rule out underlying conditions like Crohn's disease, which can contribute to fistula development.

DISCUSSION

The choice between Ayurveda and modern medicine for treating a fistula in ano (Bhagandara) depends on various factors, including the individual's preferences, the type and complexity of the fistula, and the recommendations of healthcare professionals. Both Ayurveda and modern medicine have their strengths and limitations, and what may be considered "best" can vary from person to person. Here are some considerations for each approach:

Modern Medicine

- Evidence-Based Approach: Modern medicine relies on rigorous scientific research and evidence-based practices. Many surgical techniques for fistula treatment have been wellstudied and have high success rates.
- Variety of Procedures: Modern medicine offers a wide range of surgical procedures, from fistulotomy and fistulectomy to minimally invasive options like fibrin glue injection or seton placement. These procedures can be tailored to the specific type and complexity of the fistula.
- **Timely Resolution:** Surgical interventions in modern medicine can provide relatively quick resolution of the fistula, reducing pain and discomfort.
- Accessibility: Modern medical facilities and specialists are widely available in many regions, making it easier for individuals to access treatment.

Avurveda

• Holistic Approach: Ayurveda takes a holistic approach to healthcare, focusing on balancing the body's energies (doshas) and improving overall well-being. It may appeal to those seeking a comprehensive approach to healing.

- Natural Remedies: Ayurvedic treatments often use natural remedies, herbal preparations, and therapies like Kshara Sutra therapy, which may be preferred by individuals seeking non-surgical or non-pharmaceutical options.
- **Individualized Care:** Ayurvedic practitioners typically provide personalized treatment plans based on an individual's constitution (Prakriti) and the specific type of Bhagandara, emphasizing a patient-centered approach.
- **Complementary Care:** Some individuals may choose to combine Ayurvedic treatments with modern medical care, using Ayurveda to complement their treatment plan.

It's important to note that the effectiveness of any treatment, whether Ayurvedic or modern, can vary based on the specific characteristics of the fistula and the individual's response to the treatment. It's advisable for individuals with fistula in ano to consult with healthcare professionals who are well-versed in both approaches to make an informed decision.

Ultimately, the "best" treatment depends on the individual's preferences, the nature of the fistula, and the recommendations of healthcare providers. Some individuals may find success with modern surgical interventions, while others may prefer Ayurvedic therapies or a combination of both approaches to manage their condition effectively.

CONCLUSION

Fistula in ano, known as Bhagandara in Ayurveda, is a challenging condition that can significantly impact an individual's quality of life. Timely diagnosis and appropriate treatment are essential to alleviate pain, discomfort, and complications associated with this condition. While modern medicine offers a range of surgical and medical options, Ayurvedic therapies like Kshara Sutra therapy provide holistic alternatives.

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