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RESEARCH ARTICLE

SUCCESSFUL MANAGEMENT OF ANTARMUKHIBHAGANDARA (LOW ANAL FISTULA ASSOCIATED WITH PERIANAL ABSCESS) BY INCISION AND DRAINAGE FOLLOWED BY KSHARASUTRA THERAPY: A CASE REPORT WITH SEQUENTIAL WOUND HEALING DOCUMENTATION

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Abstract

Introduction: The acute manifestation of a cryptoglandular infection spurred on by obstruction of the anal glands is perianal abscesses. They frequently develop fistula-in-ano, a chronic inflammatory condition marked by insufficient communication between the anorectal lumen and the perianal skin, if left untreated. This illness is linked to Bhagandara in Ayurvedic literature, and Acharya Sushruta categorised it as one of the Ashtamahagada (eight dreadful diseases) because of its high recurrence rate and difficult treatment. Even if standard surgical procedures are successful, there is a considerable risk of postoperative discomfort, delayed wound healing, and sphincter injury leading to faecal incontinence.

Methods: As an alternative to typical proctological operations, this research assesses the clinical efficacy and mechanisms of Ksharasutra therapy, a traditional, minimally invasive parasurgical method. A specialised medicinal thread covered in herbal alkaline pastes is used in the procedure; it is introduced into the fistulous tract and changed once a week. This eliminates the need for extensive surgical excision and permits concurrent, progressive chemical cauterisation, controlled debridement, and continuous tract drainage..

Case Presentation: Bhagandara, or fistula-in-ano, is one of the Ashtamahagada that Acharya Sushruta describes as being difficult to treat because of its chronicity and tendency to recur.

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A perianal abscess is the acute stage of a cryptoglandular infection that frequently turns into a fistula if treatment is not received. Surgical drainage is currently the most effective treatment for perianal abscess, even though Ksharasutra therapy has demonstrated encouraging results in fistula-in-ano with low recurrence rates.

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Results:Both simple and complex fistulae can be successfully cured with Ksharasutra therapy, according to clinical data. Healing and fibrosis happen simultaneously because the medicinal thread gradually penetrates the tissue. By preventing the anal sphincters from abruptly separating, this synchronous mechanism effectively maintains anorectal continence and reduces postoperative morbidity.

Discussion:Ksharasutratherapy successfully combines modern evidence-based proctology with traditional Ayurvedic parasurgical concepts. It is a scientifically proven, safe, and economical therapeutic alternative for the treatment of fistula-in-ano because it provides a sphincter-preserving mechanism, speeds up patient recovery, and has much lower recurrence rates than traditional fistulotomy or fistulectomy.

Results-Sequential photographic inspection revealed full tract cut-through, progressive wound contraction, excellent granulation tissue formation, reduced discomfort and discharge, and eventual epithelialization. Complete healing without recurrence was achieved about 40 days after the cut-through. Additionally, no recurrence episodes were seen during the patient's one-year intermittent visitation follow-up.

Conclusion: The current case shows that prompt abscess drainage combined with Ksharasutra therapy efficiently eliminates infection, encourages wound healing, maintains anorectal function, and reduces recurrence.

Introduction:-

Because of its lengthy clinical course, high likelihood of recurrence, and significant therapeutic complexity, Acharya Sushruta categorised Bhagandara among the Ashtamahagada (the eight grave, recalcitrant diseases) in classical Ayurvedic literature. He specifically noted that an inadequately managed Pakwa Vidradhi (suppurative perianal abscess) serves as its primary precursor. The current knowledge of anorectal sepsis, in which an acute perianal abscess—usually started via the cryptoglandular pathway—develops into a chronic fistula-in-ano, closely resembles this classical pathogenic development. About one-third of patients still experience a persistent, epithelialized fistulous tract as a direct consequence of the initial infection, even though timely surgical incision and drainage continue to be the gold standard for acute therapy. As a result, treating fistula-in-ano clinically poses a challenging proctological conundrum: eliminating the persistent septic focus while^{1,2}Ksharasutra is a para-surgical modality that has been scientifically validated. It works through a multimodal therapeutic mechanism that combines progressive chemical excision of the fistulous tract, controlled debridement, and simultaneous drainage, all of which promote concurrent tissue healing from the base upward. Strong modern data support the clinical effectiveness of this age-old method, most notably a historic multicentric randomised controlled experiment carried out by the Indian Council of Medical Research (ICMR). This landmark study showed that Ksharasutratherapy produces long-term success rates that are exactly on par with those of traditional surgical procedures. Additionally, the procedure is a highly effective, sphincter-preserving alternative in contemporary proctological practice because it provides clear clinical advantages, such as much decreased recurrence rates, minimum surgical morbidity, and shorter hospital stays.³

Clinical Case Presentation:-

1. Patient Demographics and Chief Complaints:A 40-year-old man complained of localized pain, edema, and redness in the left gluteal area when he arrived at the outpatient department. An intermittent, low-grade localized warmth accompanied the subtle onset that developed over several days.

Clinical History:-

Present Illness:A painful swelling in the left perianal quadrant was described by the patient. He reported a history of active episodes of purulent or serosanguinous discharge from the location, but he also characterised a persistent inclination toward constipation. This ailment had not previously been treated with medication or surgery.

Medical History:not involved. Crohn's illness, thyroid issues, diabetes mellitus type 2, and tuberculosis have not been present in the past. The patient was diagnosed with hypertension four months ago and had been taking antihypertensive medication regularly.

Surgical History: No past anorectal operations, biomedical implants, or surgeries.

Family and Personal History: Neither colorectal cancer nor inflammatory bowel disease (IBD) has a noteworthy family history. The patient states that they had occasionally smoked tobacco and drank alcohol in social situations.

Systemic Review:Appetite, micturition, and sleeping patterns are all typical. Constipation is remarkable in the context of bowel habits.

Physical and Local Examination-The patient was found to be hemodynamically stable upon general physical examination. The following results were obtained from a local examination of the gluteal and perianal regions:

Inspection:The perianal skin around it seemed normal. There was only erythema (redness) in the left gluteal area. There was no visible active external fistulous opening or active purulent discharge.

Palpation:The skin around the perianal area seemed normal. Redness, or erythema, was limited to the left gluteal area. There was no visible active purulent discharge or outward fistulous opening.

Clinical Correlation and Diagnostic Impression: Based on when an acute, fluctuating inflammatory collection appears clinically without an outward fistulous entrance, an acute perianal abscess (left gluteal region) is the predominant diagnostic impression.

Pathophysiological Progression-According to modern proctology, this manifestation is the acute suppurative stage of a cryptoglandular infection caused by the blockage of the anal glands. This stage corresponds with Pakwa Vidradhi (suppurative abscess) in traditional Ayurvedic literature.

This acute abscess is very likely to track through the intersphincteric spaces, break through the perianal skin, and develop into a chronic Bhagandara (fistula-in-ano) if it is not treated or is not well drained. Bhagandara's chronic, recurrent nature and therapeutic intricacy led Acharya Sushruta to classify it as one of the Ashtamahagada (eight dreadful diseases).

Therapeutic Strategy-Acute Phase Interventions:To minimise further fistulization and prevent significant tissue necrosis, the gold standard for treating an acute perianal abscess is still an urgent surgical incision, complete debridement, and sufficient drainage. Additionally, minimally invasive Ksharasutra therapy is recommended if the abscess develops into a chronic consequence (fistula-in-ano). This parasurgical method offers high cure rates with no chance of sphincter compromise or recurrence by using a medicated thread to enable progressive chemical cauterisation, continuous drainage, and synchronous tissue recovery.

Clinical Examination Findings:-

Examination Category	Parameters Evaluated	Clinical Observations / Findings
Physical Examination in General	Mental Condition	Aware and concentrated, cooperative, and aware of time, place, and people
	Heart Condition	Normal blood pressure (under control); normal pulse rate
	Respiratory Condition	Normal breathing rate (absence of tachypnea)
	Temperature of the System	Afebrile during the examination
Local Examination (Inspection & Palpation)	Changes in Morphology	There was localised perianal oedema in the left quadrant.
	Inflammatory Signs	There are noticeable soreness (pain) and a high local temperature (calor)
	Chronicity	Presence of chronicity/duration noted
	Exudate	Active purulent discharge was present
Anoscopy/Digital Rectal Examination (DRE)	Internal Opening	The primary internal aperture is located in the posterior midline, or six o'clock.

Clinical Interpretation:-

An active suppurative process is clearly suggested by the localized left perianal oedema, discomfort, elevated local temperature, and active pus discharge. A cryptoglandular origin, the traditional pathway for the pathogenesis of Bhagandara (fistula-in-ano), is confirmed by the discovery of an internal opening at the 6 of the clock position (posterior midline). Because it controls how the fistulous course is tracked in accordance with Goodsall's Rule, this position is extremely important.

Clinical signs lead to the diagnosis of Perianal Abscess with Low Anal Fistula (Antarmukhi Bhagandara combined with Gudaja Vidradhi).^{5,6}

Preoperative Laboratory Investigations and Surgical Fitness Assessment-

Investigation Panel	Parameters Evaluated	Clinical Value	Reference Range Status
Hematological Profile	Haemoglobin, WBC, platelets, and differential count are all included in the complete blood count (CBC). ESR)	Normal	Normal Limits (WNL)
Biochemical Profile	Blood Sugar at Random (RBS)	Normal	Normal Limits (WNL)
	Tests for Liver Function (LFT) (SGOT, SGPT, Bilirubin, Alkaline Phosphatase)	Normal	Normal Limits (WNL)
	Kidney Function Tests (KFT) (Blood Urea, Serum Creatinine)	Normal	With Normal Limits (WNL)
Urine analysis	Regular and Microscopic Urine Analysis	Normal	No abnormalities detected
Serological Screening	HIV, HBsAg, and HCV viral markers	Non-Reactive	Negative
Fitness Conclusion	Surgical clearance and pre-anesthesia	MEDICALLY FIT	Cleared for Surgery

No significant abnormalities or systemic diseases were found during the thorough haematological and biochemical tests. The patient's homeostatic and metabolic parameters were verified to be stable by normal renal and hepatic profiles, ideal glycemic status, and a clean haematological panel. The patient was formally declared medically fit to undergo the planned surgical/parasurgical procedure based on these objective laboratory indicators and the initial physical examination.

Therapeutic Intervention-The patient was taken up for surgical treatment under appropriate anaesthesia and strict aseptic procedures after providing informed verbal and written consent. The collected pus was entirely evacuated, and the afflicted area was decompressed as shalya karma, or incision and drainage, after an incision was made over the abscess chamber and the purulent collection was meticulously drained. Following drainage, the fistulous tract was precisely located, its progress was tracked, and its communication with the anal canal was confirmed using a flexible probe. To encourage healing and a progressive cut-through, a Ksharasutra was subsequently put through the tract. A sterile dressing was applied after the surgery, and sufficient hemostasis was achieved. Dressing was done aseptically. For additional observation, the patient was moved to the recovery area. The patient tolerated the procedure well, and there were no immediate issues. Ksharasutra combines chemical and mechanical effects to create controlled chemical cauterisation, continuous drainage, debridement of sick tissue, and fistulous tract fibrosis. By progressively cutting along the tract, this method reduces the risk of recurrence, preserves anal sphincter function, and encourages the growth of healthy granulation tissue and wound healing. In order to promote good wound healing, Ksharasutra's technique entails concurrent chemical cauterisation, drainage, debridement, fibrosis, and finally cut-through of the fistulous tract.^{3,8}, and the patient took intermittent 1-year postoperative follow-up, and no episode recurrence occurred.

Postoperative Management-The patient was instructed to continue getting cautious postoperative treatment, which included warm sitz baths twice a day and frequent local wound cleansing. Dietary guidelines emphasised the need to eat a high-fibre diet and drink adequate water to encourage smooth bowel movements and prevent constipation. Analgesic medications were administered as needed to manage pain. To assess clinical progress and monitor wound healing, weekly follow-up appointments were scheduled.

Clinical Assessment Criteria: The wound-healing process and treatment outcome were assessed using a wide range of clinical indicators. The degree of pain at the affected area, the presence and amount of purulent discharge, and the patient's level of pain (measured by the vas scale) were all assessed. The wound healing process was evaluated by the development of healthy granulation tissue, the constriction of the wound to minimise its size, and

the duration required for the fistulous tract to be entirely cut through. The duration of healing and the achievement of complete epithelialization were also recorded at follow-up appointments. These measurements provide an objective evaluation of surgical healing outcomes in patients undergoing treatment for fistula-in-ano and related anorectal disorders.^{2,4}

Sequential Wound Healing Assessment

Preoperative Stage-Signs of extreme pain, tenderness, localised warmth, and intermittent purulent discharge were present in the patient's left perianal region. These findings indicated the emergence of an abscess and severe anorectal sepsis.¹

Fig.1



Intraoperative Stage-At the six o'clock position, the fistulous tract that communicates with the anal canal was located. Ksharasutras were used when the purulent substance was completely drained.

Fig.2



Post-operative Day 0-photograph showing perianal abscess cavity with identified fistulous tract during Ksharasutra application. Adequate drainage and debridement of the abscess cavity were achieved before Ksharasutra placement. On postoperative evaluation, the patient experienced moderate pain with mild serosanguinous discharge from the wound site. Local tissue tension was noticeably reduced, and adequate drainage of the abscess cavity was

maintained. No clinical evidence of residual abscess or secondary infection was observed, indicating satisfactory early postoperative recovery.

Fig 3.



Postoperative Day 15-During follow-up evaluation, the patient reported a notable reduction in discomfort with only minimal tenderness at the operative site. The discharge had significantly decreased compared to the immediate postoperative period. Healthy granulation tissue was observed within the wound bed, indicating satisfactory tissue repair and healing. Progressive wound contraction was also evident over time, reflecting favourable wound healing and recovery.

Fig 4.



Post-operative Day 25 -On subsequent follow-up, the Ksharasutracut-through process was found to be nearly complete. The patient exhibited only minimal discharge from the operative site, and a healthy wound bed with satisfactory granulation tissue was observed. No clinical signs of secondary or recurrent infection were evident, indicating favourable progression toward complete healing.

Fig.5



Forty Days After Complete Cut-Through-

fig.6



On subsequent follow-up, the Ksharasutra cut-through process was found to be nearly complete. The patient exhibited only minimal discharge from the operative site, and a healthy wound bed with satisfactory granulation tissue was observed. No clinical signs of secondary or recurrent infection were evident, indicating favourable progression toward complete healing.

Outcome Assessment-

Parameter	Pre-op	Day 1	Day 15	Day 25	Day 40
Pain	Severe	Moderate	Mild	Minimal	Absent
Tenderness	Severe	Moderate	Mild	Minimal	Absent
Discharge	Present	Mild	Minimal	Trace	Absent
Granulation Tissue	Absent	Early	Healthy	Well developed	Complete epithelialization
Wound Size	Large	Reduced	Moderate	Small	Healed
Local Temperature	Raised	Reduced	Normal	Normal	Normal

Discussion:-

Perianal abscesses represent the most frequently encountered manifestation of acute anorectal sepsis, primarily arising from suppuration within the anal crypts via the cryptoglandular pathway. Delayed or inadequate therapeutic intervention significantly elevates the risk of extensive tissue destruction, chronic recurrent infections, and subsequent progression to a complex fistula-in-ano. Consequently, timely surgical incision and thorough drainage remain the definitive cornerstone of management to eradicate the acute septic focus and mitigate long-term structural morbidity.^{1,9} This clinical progression highlights a profound correlation between classical Ayurvedic surgical principles and modern proctological concepts. In the Sushruta Samhita, Acharya Sushruta explicitly posits that a poorly managed or inadequately drained GudajaVidradhi (anorectal abscess) invariably matures into Bhagandara (fistula-in-ano). This ancient etiopathogenetic framework directly mirrors the contemporary understanding of anorectal sepsis. In modern medical science, the acute suppurative phase—characterised by a perianal abscess originating via the cryptoglandular pathway—is recognised as the direct precursor to a chronic fistulous tract. When the acute abscess is left untreated or when surgical drainage is delayed, the high-pressure purulent collection forces its way through the intersphincteric tissue planes.

This tracking mechanism causes extensive structural damage and establishes an abnormal, epithelialized communication between the anal canal and the perianal skin. Ultimately, the clinical course observed in this case underscores that GudajaVidradhi and Bhagandara are not two distinct diseases, but rather sequential acute and chronic phases of a single, continuous inflammatory pathway, matching today's cryptoglandular doctrine.^{5,6} The subsequent application of Ksharasutra facilitated a continuous, controlled drainage of the inflammatory tract while simultaneously driving its progressive, chemical excision. A key therapeutic advantage of this parasurgical technique is that it induces concurrent tissue fibrosis and localised healing from the base upward, preventing the sudden anatomical separation of the anal sphincters.

The clinical efficacy of this modality is robustly substantiated by a landmark, multicentric randomised controlled trial conducted by the Indian Council of Medical Research (ICMR). The trial demonstrated that Ksharasutra therapy achieved superior long-term clinical outcomes compared to conventional surgical procedures, with the treatment cohort demonstrating complete epithelialization, definitive tract healing, and a significantly lower rate of recurrence.³ The wound contraction, ultimate epithelialization, creation of healthy granulation tissue, and decrease in inflammation are all indicative of gradual healing, as seen in the serial wound photos. Previous research has revealed similar results, with Ksharasutratherapy showing favourable healing profiles and low recurrence rates.^{3,8,10} In the present case, the postoperative course was entirely uneventful, demonstrating no evidence of procedural complications, structural recurrence, or compromise to anorectal continence (faecal incontinence).

Conclusion:-

This case demonstrates how Gudaja Vidradhi's AntarmukhiBhagandara was successfully treated using incision, drainage, and Ksharasutratherapy. About 40 days after cut-through, there was a noticeable decrease in pain, discomfort, discharge, and wound size, along with the production of granulation tissue and full healing. The therapeutic effectiveness of Ksharasutratherapy in fistula-in-ano is supported by sequential photographic documentation, which offers objective proof of good wound healing.

Patient Consent:-

The patient gave written informed consent for the release of clinical information and images.

Conflict of Interest:-

None declared.

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Nil.

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