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A CASE STUDY OF KSHARSUTRA LIGATION WITH PARTIAL FISTULECTOMY IN THE MANAGEMENT OF POSTERIOR HORSE SHOE FISTULA IN ANO – BHAGANDARA

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ABSTRACT

Introduction: A fistula-in-ano is an epithelial-lined tract connecting the anal canal to the perianal skin. Anal fistulas can have many causes but are most commonly the result of an anorectal abscess. Classification of the fistula is determined in relation to the anal sphincters. Although benign, the condition can cause significant distress and embarrassment to the patient. Treatment focuses on control of the infection and maintaining fecal continence. So partial fistulectomy with kshar sutra ligation selected in posterior horse shoe abscess with fistula in ano

Material & Method: A 38 Years male Patient treated with Abscess I & D and Partial Fistulectomy with Kshar Sutra Ligation. Kshar sutra changed weekly, Total 5 Sitting of Kshar- sutra therapy done.

Result: After 5 Sitting of Kshar- sutra therapy remaing fistulotus tract completely cut with complete wound heal and patient was completely cured.

Discussion: fistulotomy, fistulectomy, anal fistula plug, FilaC , VAAFT, LIFT. But there is a high recurrence rate and loss of continence. Kshar sutra act like cutting seton and cut anal sphincter gradually so there is a no risk of incontinence and also act like sphincter saving procedure.

KEYWORDS: Horse Shoe Fistula, Bhagandara, Partial Fistulectomy , Kshar Sutra Ligation

INTRODUCTION

Fistula-in-ano often occurs following anorectal abscess. An anorectal abscess occurs when an anal gland becomes obstructed, resulting in infection and abscess formation. The infection is located near the sphincter complex, and therefore the fistula can traverse the sphincters. One-third of patients undergoing incision and drainage of an anorectal abscess will later develop a fistula[1] Thirty to 70% of patients diagnosed with an anorectal abscess will already have a fistula present on exam.[2]

The word Bhagandar is composed of two words, 'Bhaga' and 'Darana'. Bhaga the area between anus and the genitalia is defined as bhaga. Darana to tear or destroy. Hence, Bhagandara may be considered as a type of a chronic sinus in the perianal area or perineum which discharges pus or blood and left untreated, there may be discharge of faeces, flatus urine and semen. Or it may be secondary to the suppuration of an abscess - Bhagandara pidaka' resulting in tearing or destruction of these areas [3-4]

Complex fistulas include those that involve more than 30% of the external sphincter, fistulas with multiple tracts, recurrent fistulas, and those associated with other predisposing factors, including Crohn disease and radiation treatment.[5] Due to the large involvement of the external sphincter, a simple fistulotomy should not be performed due to the risk of postoperative fecal incontinence. Complex repair or staged repair is preferred to preserve sphincter function.

MATERIAL & METHOD

This is a single case study of patient with posterior Horse shoe perianal abscess with fistula in ano. A 38 years male Patient came at shri atmanand saraswati Ayurveda Hospital , surat. Patient was examine at OPD Base. On examination we diagnosed a case of posterior Horse shoe perianal abscess with fistula in ano. Next day right perianal abscess was spontaneously brust. In this case after all pre operative major profile and MRI we performed Abscess I & D with partial fistulectomy and Kshar sutra ligation .

CASE REPORT

Chief complaints:

Patient complains of sever pain at perianal region , with swelling at perianal Region, since 7 days Fever

Local examination

On Inspection

Swelling at perianal region

On Palpation

Induration At 7 o'clock position
Fluctuation sign positive
Increased Temperature at swollen area

P/R Digital examination

Int Opening at 6 o'clock position aprox 2 cm from anal verge

Blood Investigation

- **Heamoglobin** – 15.10 gm%
- **RBC** – 5.11 mill/c.mm
- **Total WBC- 16600 /c.mm**
- **ESR**- 150 .m.m
- **BT**- 2.10/min
- **CT** – 7.00/min
- **RBS** – 85 mg/dl
- **S. Creat** – 1.00 mg/dl
- **S. HIV** – Negative
- **S.HBsAg**- Negative

MRI report

1. Fairly wide thick walled altered signal tract in posterior perianal region with significant internal abscess formation; probably large internal opening at 5 to 6/7 O' clock position; no obvious external opening; likely represent features of a trans-sphincteric perianal sinus.
2. Multiloculated interconnected thick walled abscesses in the bilateral ischio-rectal fossa
3. Significant inflammatory changes (cellulitis) in the bilateral ischiorectal fossa and gluteal
4. regions (right>>left) and presacral and retro-sacral regions.
5. Subtle altered marrow signal in the lower coccyx may represent changes of early osteitis.
6. Few left internal iliac, bilateral external iliac and bilateral inguinal lymphnodes, probably representing pathological lymph nodes.

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Date: 07.02.2022
Sex / Age: M/38 yrs.
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EXAMINATION: MRI STUDY OF PERIANAL REGION (FISTULOGRAM)

CLINICAL PROFILE: C/o Pain & swelling at perianal region.

EXAMINATION PROTOCOL:

MRI study of perianal region was performed using T1W, T2W, T2W FSAT axial, T1W and STIR coronal and T1W, T2W FSAT sagittal images.

OBSERVATION:

There is a fairly wide thick walled altered signal tract seen in posterior perianal region. It is heterogeneously hyperintense on T2W and STIR images and iso to hypointense on T1W images. It shows significant internal fluid signal intensity, represent internal abscess formation.

The track is abutting the internal sphincter, with probably large internal opening at 5 to 6/7 O' clock position at approx. 3 cm from anal verge. It is extending into the intersphincteric region. There is ramification of the track noted in the intersphincteric space which is extending to left side and left ischiorectal fossa and is blind ending. It is extending further through the external sphincter into the bilateral ischiorectal fossae (right>>left) and subcutaneous soft tissues of right gluteal fold. There is associated thickening of internal and external sphincter noted with abscess formation in the intersphincteric space. No evidence of any obvious external opening is visualized.

There is no evidence of any obvious supra-levator extension noted but the abscess is closely abutting the prostate on right lateral aspect. Posteriorly it is abutting the coccyx with minimal extension into the presacral space. Fluid strip is present in the lower presacral and retro-sacral regions likely representing inflammatory changes. Subtle altered marrow signal is seen in the lower coccyx which shows subtle hyperintense signal seen on the T2W, STIR images and iso to hypointense signal on T1W images. These may represent changes of early osteitis.

There are multiloculated interconnected thick walled collections seen in the bilateral ischio-rectal fossae (upto 7.4 x 4.3 x 7.0 cm on right and upto 2.7 x 2.3 x 4.0 cm on left side) and right gluteal region (upto 6.4 x 1.9 x 4.6 cm) with heterogeneous internal contents and debris, which shows mixed hypo-intermediate-hyperintense signal seen on the T2W, STIR images and hypointense signal on T1W images. There is restricted diffusion seen on DW images. These represent abscesses.

There is significant fat stranding adjacent to the tract in the bilateral ischiorectal fossa and gluteal regions (right>>left), representing inflammatory changes (cellulitis).

Few left internal iliac (upto 9.3 x 9.4 x 11.6 mm), bilateral external iliac (upto 23.8 x 11.6 mm on right and 23.1 x 7.2 mm on left side) and bilateral inguinal (upto 15.5 x 9.4 mm on right and 12.1 x 10.4 mm on left side) lymphnodes are present, probably representing pathological lymph nodes.

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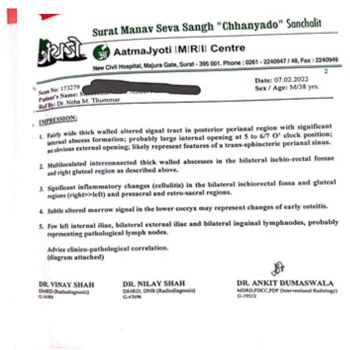
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IMPRESSION:

1. Fairly wide thick walled altered signal tract in posterior perianal region with significant internal abscess formation; probably large internal opening at 5 to 6/7 O' clock position; no obvious external opening; likely represent features of a trans-sphincteric perianal sinus.
2. Multiloculated interconnected thick walled abscesses in the bilateral ischio-rectal fossae and right gluteal region as described above.
3. Significant inflammatory changes (cellulitis) in the bilateral ischiorectal fossa and gluteal regions (right>>left) and presacral and retro-sacral regions.
4. Subtle altered marrow signal in the lower coccyx may represent changes of early osteitis.
5. Few left internal iliac, bilateral external iliac and bilateral inguinal lymphnodes, probably representing pathological lymph nodes.

Advice clinico-pathological correlation.
(diagram attached)

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Image 1,2,3 – MRI report

Pre-Operative Procedure
- Inj. TT 0.5CC IM was given
- Consent was taken
- Proctolysis enema was given
- Inj. Monocef 1 gm IV a night before surgery

Operative Procedure
- Patient was positioned in lithotomy position
- Part painted and draped.
- Spinal anaesthesia given (inj.Anwin Heavy)

Operative procedure
In the operation room, under spinal anesthesia patient was evaluated in the lithotomy position. proctoscopy was done prior to any intervention. Abscess I & D was done at 7 and 5 o'clock position. All loculi broken by index finger and abcess cavity was scoop out Pus was sent for culture and sensitivity report. probing done using a standard 3 mm blunt-tipped copper probe from 7 and 5 o'clock cavity site and it pears from internal opening at 6 o'clock position. Copper probe is used because it is highly malleable. Then a Ksharsutra is tied to the eye of the copper probe and the probe is brought out through the anal canal, during the manoeuvre the Kshar sutra is also dragged along the course of the fistulous tract At 5 o'clock and 7 o'clock position. Now the Kshar sutra which was brought through the only part of anal sphincters to internal opening, thus traversing the whole path of anal sphincters is tied by ksharsutra. This is a purely sphincter saving method, Around 3-4 cm part of track is tied over and this took around 5 week for completely cut through. Patient was advised to come for Kshar sutra change weekly once.

Post-Operative Procedure
- Inj. Dynapar IM for pain 2days
- Inj. Oframax forte 1.5 gm IV bd * 3days
- INj Amikacin 500 mg IV BD for 7 days
- Inj.pan 40 IV bd * 3days
- Tab. DAN – P 1bd* 5days
- Tab. Triphala guggulu 2-0-2* 1.5 month

Pus Culture & sensitivity Report

Specimen - PUS (Ishchioanal Abcess)
Gram stain - Gram Negative Bacilli are seen.
Result- Klebsiella pneumoniae
Culture Report - POSITIVE

Image 4,5- Pus Culture & sensitivity Report

Image 6 – Before surgery

Image 7 – After surgery

Image 8 – After 2 sitting of kshar sutra

Image 9 – After 4 sitting of kshar sutra

RESULT
Total 5 Sitting of Kshar- sutra therapy was done. Both remaing fistulotus tract completely cut after 5 sitting and wound was complete healed with in 1.5 month. Patient was completely cure with kshar sutra therapy and take 1 year follow up and there is no any complain found by patient and there is no any sign of recurrence of fistula in ano after kshar sutra therapy.

DISCUSSION
Ideal surgical treatment for anal fistula should aim to eradicate sepsis and promote healing of the tract, whilst preserving the sphincters and the mechanism of continence. However, the risk of potential damage to the anal sphincters and subsequent poor functional outcome remains in a large proportion of patients with high fistulae when the tract crosses more than 30%-50% of the external sphincter, and with recurrent or complex fistulae with multiple extensions or separate tracts.[6]

Ksharasutra is a scientifically validated treatment in the management of Bhagandara.

The adjuvant drugs were prescribed to achieve better outcome of the surgical management. Triphala Guggulu helps in the postoperative wound healing[7]

CONCLUSION
Features of Bhagandara are as par with Fistula in ano explained in text books of surgery. Cases of fistula have been raised in few decades. Incidence of complex fistula with multiple tracts is rare comparatively and is complicated to give cure. Ksharasutra therapy is a radical cure in the treatment of Bhagandara without complications and recurrence.

Ksharasutra therapy can be done in a small setup with a minimal equipment and instruments and moreover the patients remain ambulatory during the whole course of treatment, is an additional advantage in comparison to conventional therapy for fistula in ano. It is a simple, safe and sure shot treatment for anal fistula. Apamarga Ksharasutra is a reliable therapy in the management of fistula in ano.

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