A Clinical Case Study Article on Management of Pilonidal Sinus Through Ksharsutra Ayurveda Care

Dr Nikita Shrikrishna More[1], Dr Rohit Ashok Raut[2]
[1,2]*PG Scholar, Govt. Ayurvedic College Nanded Maharashtra*

***Abstract*—Introduction: Pilonidal disease refers to subcutaneous infection occurring in the upper half of the gluteal cleft having no communication in the anal canal. In Ayurveda it can be correlated to Shalyajanya Nadivrana which is described in detail by Acharya Sushrutha. It presents as an acute abscess or chronic wound associated with pus discharge and severe discomfort. In this case report we present 23 years old female patient who reported to the OPD of Shalya government Ayurvedic college, Nanded with the complains of pain associated with pus discharge at the natal cleft region since two weeks with a history of Z plasty surgery. Methods: The case was managed by surgical excision followed by Kshara Karma, Triphala Prakshalana and dressing with Jatyadi Taila. Internally the patient was administered with Triphala Guggulu and Gandhaka Rasayana. Discussion: Apamarga Kshara helps in removal of unhealthy granulation tissue and cellular debris by sclerosing properties thereby lowering the recurrence rate. Triphala Prakshalana and wound dressing by Jathyadhi Taila fastens the healing process by microcidal effect. Results: The initial complains of pain associated with pus discharge subsided within seven days, while complete healing of the tract was observed within two months. Conclusion: The surgical approach in contemporary science includes excision with reconstructive flaps (z-plasty). However, the recurrence rate is more and there are increased chances of developing wound infection. Hence in this case excision of sinus followed by apamarga kshara pratisarana was incorporated which showed promising results**

***Index Terms*—Apamarga Ksharakarma, Pilonidal sinus, Shalyajanya Nadivrana, Ayurveda**

I. INTRODUCTION

Pilonidal sinus which is apparently minor condition can present the surgeon with major challenges. The initial pathology is of one or multiple deep midline pits in the natal cleft, which connect with a granulation tissue-lined cavity lying in subcutaneous fat along with tuft of hair. This leads to recurrent infections in the cavity, which later extends under apparently normal skin, both in natal cleft and laterally into one or both buttocks.

Minor infections may settle with a course of antibiotics, while there is a need for surgical drainage in case of abscess formation, however even after surgical drainage the underlying pathology remains which leads to repeated episodes of infections. The incidence of disease is approximately 26 per 100000 populations.

Pilonidal infections and chronic pilonidal sinuses are usually found in the midline of the sacrococcygeal region of young hirsute men. The presence of hair in the gluteal cleft seems to play a central role in the pathogenesis of this disease.

This is consistent with the observation that pilonidal disease rarely occurs in those with less hair. Other risk factors include obesity, local trauma, and sedentary lifestyle, deep natal cleft and family history.

Diagnosis is generally a clinical one, patients may present with a chronic inflammation or a sinus with persistent drainage. Acutely, there may be an abscess or multiple complex subcutaneous tracks.

In Ayurveda it can be correlated to Shalyaja Nadi Vrana. It is a condition which develops when Shalya (foreign matter such as hair, bone, dirt etc.) lodges in the body and leads to formation of sinus. It is characterized by continuous pain, and discharge which is sometimes blood mixed. Treatment for Shalyaja Nadi Vrana is explained as removal of Shalya by Chedana and Shalyamarga Shodana. One of the methods used is Chedana of Nadi Vrana and application of Pratisaraneeya Kshara.

II. CASE STUDY

Chief complaints
A 23 years old female, from Nanded, Maharashtra came to Govt. College of Ayurveda & Hospital presented with complains of pain and pus discharge in the natal cleft region since 2 weeks.

History of present illness
Patient was apparently healthy 2 months back, and then she noticed swelling on gluteal natal cleft associated with pain and pus discharge. She had history of repeated boils or abscess or slight seropurulent foul discharge in the natal cleft region. For the above complaints she consulted a surgeon and underwent Z Plasty surgery for the same. From past 2 weeks, patient complains of pain and pus discharge in the natal cleft region. For further management she consulted Shalya OPD and got admitted for the same.

History of past illness
No H/O Diabetes, hypertension, thyroid disorder or any other medical disease.

Treatment history
H/O Z - plasty

Personal history
Appetite - Altered
Bowel - Regular
Micturition - Regular
Sleep - Adequate

Examination of the Patient
General examination
General appearance: Fair
Nutritional status: Obese
Consciousness: Conscious
Pallor: Present
Icterus: Absent
Cyanosis: Absent
Clubbing: Absent
Oedema: Absent
Lymphadenopathy: Absent

Vitals
BP :110/80 mm of Hg
Temperature: Afebrile, 98.2°F
Pulse: 88bpm
Respiratory Rate: 16 cycles/min

Local examination
Inspection on prone position - Surgical scar mark of z plasty, single pit with serous discharge in mid sacrococcygeal region behind anus and one secondary sinus opening extend to just right lateral to midline was present. On pressure with finger purulent discharge was escaped from opening.

Perianal area was normal.
Digital rectal examination - normal anal verge with normotonic anal sphincter.
Proctoscopy - nothing abnormality was detected

Investigations
Hb: 10.5 gm%
TC: 13,900 cells/cmm
DC: N-84, L-33, M-2, E-5
ESR: 78mm 1st hour
RBS: 100.9 mg/dl
Serum Creatinine: 0.9 mg/dl
Lipid Profile: WNL

Final diagnosis
Pilonidal Sinus / Shalyaja Nadi Vrana

Intervention
Complete excision of sinus tract with adjoining tissue was done after laboratory and pre anesthetic evaluation. Prateesaraniya Apamarga Kshara Karma (application of chemical cautery) followed by Vranaropana with Jatyadi Taila was done. Apamarga Kshara (Alkaline preparation made by Achyranthes aspera) was used. Orally Vranashodhana drugs like Triphala Guggulu and Gandhak Rasayana were given.

Preoperative procedure
Written surgical consent was taken from legal guardian. Patient was kept nil by mouth for 4 hours prior to surgery. Surgical part preparation was done. Injection tetanus toxoid 0.5 ml was given in intramuscular in right upper limb deltoid muscle. Injection lignocaine 0.2 ml intradermal was given for pre anesthetic skin sensitivity test purpose.

Intraoperative procedure
Patient was given prone position under aseptic precaution. Painting and draping were done over natal cleft and gluteal region. A small gauze piece was placed in the lower part of the cleft to prevent the

spread of the septic materials to anal region. Natal cleft was retracted laterally to expose the opening in the mid sacral line, where primary sinus was identified, Local anesthesia was given. Next the probe was passed through the secondary opening, which was located 2 cm above and right laterally to the primary opening in the mid spinal line. An elliptical incision was made in the natal cleft, which includes sinus tract and its branches & 2 cm adjoining healthy tissues. Incision was deepened to cut the deeper tissues. It reaches up to the presacral fascia, which covers the sacrococcygeal region.

Now incised edges was held with Allice forceps and traction was applied firmly. Deep dissection was carried out with the scissor and scalpel to separate the tissue from deep fascia. The dissected tissue was removed and hemostasis was achieved by diathermy. Complete excision of sinus tract with adjoining tissues was done.

Prateesaraneya Apamarga Kshara (high potency alkali) was applied over the wound for 1 minute. Within a minute wound surface becomes cauterized and turns blackish. Then the wound was irrigated with Nimbu Swarasa or lime juice water to remove additional Kshara, which prevent further damage of the tissue. After complete hemostasis the wound was packed tightly with ribbon gauze soaked in Jatyadi Taila.

Post operative procedure

Post operative care is aimed to achieved pain management and wound care with prevention of recurrence.



Fig. 1: Case of pilonidal sinus with post operative Z Plasty scar mark



Fig. 2: Probing from primary sinus

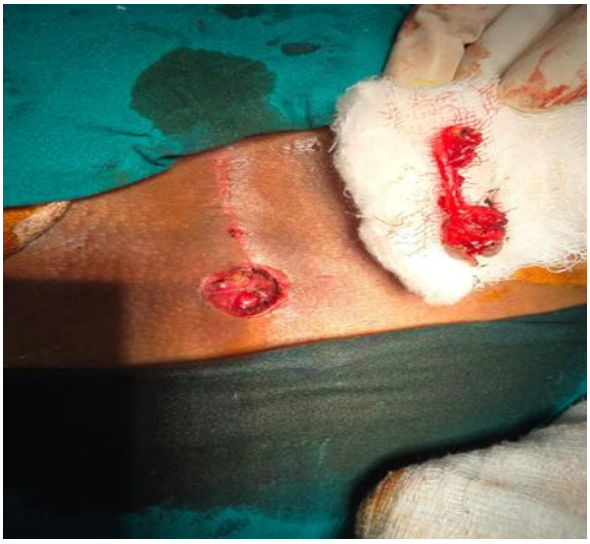


Fig. 3: Excised pilonidal sinus – tuft of hair visualized



Fig. 4: Application of Pratisaraneeya Apamarga Kshara over surgical wound site



Fig. 5: Post OP Day 5



Fig. 6: Post OP Day 10



Fig. 7: Post OP Day 20



Fig. 8: Complete Healed Wound

Follow Up and Outcome

Patient was called for follow up every week after discharge. By 6 weeks post-operative wound was completely healed by leaving a minimal scar tissue. Follow up study reveals complete cure without any complications without recurrence even after 1 month.

III. DISCUSSION

Pilonidal sinus is a challenging condition wherein surgeons mainly face difficulties like wound healing and post-operative recurrence. Excision of complete sinus tract with adjoining tissue and removal of tuft of hair results in terminating the ongoing acute inflammatory process.

Kshara being alkaline in nature causes fat saponification and alkaline proteinates which result in liquefaction necrosis when applied over tissue. It also extracts considerable water from cells due to hygroscopic nature causing cell death and tissue damage.

So, by virtue of its caustic action it destroys and removes unhealthy tissues and promotes healing. Any residual granulation tissues left during excision may cause recurrence are destroyed by Kshara application and probably decrease the chances of recurrence.

Apamarga Kshara helps to remove unhealthy granulation tissue & cellular debris by sclerosing property where recurrence rate is low.

In post-operative Vranashodhan having anti-inflammatory and microbicidal properties like Triphala Guggulu containing Emblica officinalis, Terminalia chebula, Terminalia bellerica, Piper longum, and Commiphora mukul was helpful.
Once the granulation tissue formation takes place, Vranaropana drug like Jatyadi Taila are used for wound dressing to minimize the wound infection and accelerate wound healing by reducing microbial load.

IV. CONCLUSION

Hence, complete excision of sinus tract without primary suturing and application of Pratisaraneeya Apamarga Kshara with wound care by Jatyadi Taila with systemic Vranashodhan drugs are found to be having promising efficacy for the treatment of pilonidal sinus. It can be a better alternative to all current standard procedures. It has very less or no adverse effects. It is found to be very cost effective. It can also be done on OPD basis. A study on larger sample size is required to comment about the exact rate of recurrence.

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