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Ayurvedic review article on pilonidal sinus

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Abstract

Pilonidal sinus disease is chronic acquired condition leading to significant morbidity and associated healthcare costs. Several techniques have been described to manage this condition with no treatment gaining universal acceptance. Pilonidal sinus is a common disease of the natal cleft in the sacrococcygeal region with weak hair accumulation occurring in the hair follicles, which can be chronic and undergo acute exacerbation. The patient presents with the complaints, which are characteristics of inflammation-a painful swelling, redness, local temperature raised or with a sinus discharge. Prolong sitting, presence of deep natal cleft, obesity; repeated irritation due to hair, family history may increase the risk of disease. In Ayurvedic science Pilonidal sinus is better correlated and treated as the Nadi vrana. Acharya Sushruta mentioned eight types of sinuses as Nadivarna. Among these, pilonidal sinus can be considered under Shalyaj Nadivrana.

Keywords: Pilonidal sinus, Nadi vrana, Ayurved

Introduction

Pilonidal sinus is chronic inflammatory disorder consisting of a midline pit sited in midgluteal cleft behind the anal canal between the buttocks associated with hairs [1]. Pilonidal sinuses usually occur in the postanal region but they may be found in the axilla, the groins, and the inter digital web of the hands or feet and on the occiput. The most important predisposing factors for the development of pilonidal sinus are the existence of a deep natal cleft and the presence of hair within the cleft. A deep natal cleft is a favorable atmosphere for maceration, sweating, bacterial contamination and penetration of hairs. Thus, for treatment and prevention, these causative factors must be eliminated [2-3]. Loose hairs in the natal cleft skin create a foreign body reaction that ultimately leads to formation of midline pits and in some cases secondary infection [4-5]. Postanal pilonidal sinus can present acutely as a pilonidal abscess, asymptotically as a small pit or non-tender lump, or as a discharging lesion with or without pain or a lump. The main features of the chronic sinus are present of a midline primary pit (or more than one) at the base of the natal cleft, which is epithelial lined and usually not inflamed and may have several hair fragments inserted into it that can be pulled out. A secondary opening may be present, which usually on one side (laterally) and it may discharge pus or blood and be lined by granulation tissue. There may be a palpable track leading from the midline pit. More than one secondary opening means the sinus track has branches. Several treatment modalities have been tried for pilonidal disease, including shaving, incision and drainage, phenol application, cryosurgery, excision with primary closure, excision with open packing, excision with marsupialization, and recently, flaps surgery [6-9].

Materials and methods

Related references were collected from classical texts of Ayurveda, modern text books, various publications, internet and research papers

Ayurveda concept

In Ayurvedic texts, the pilonidal sinus is classified as Nadivrana (Shalya nimittiyaj), which is produced by Shalya (ie, a foreign substance). Shalyaj Nadivruna is a track that has gone undiscovered due to the presence of pus unhealthy granulation tissue, and hairs, among other things.

Nidan (Aetiology)

According to Ayurveda, the 'Nadi Vrana' arises when the surgeon drains the Apakva Vrana Shophya (Immature abscess) rather than the matured Vrana Sophera (abscess), when the patient

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practises Ahita Ahara and Vihara (unhealthy food and lifestyle), and when the patient has Salya (foreign body)."

Samprapti (Pathogenesis)

According to Ayurveda, if a Shalya (foreign body) becomes stuck within the body for an extended period of time, it creates a tract or Gati that tends to burst open the skin. Puya (pus) discharge that is frothy (Phenayukta) and mixed with blood can be seen from this tract. The discharge is always linked with discomfort and worsens with movement of the part. This is known as the Shalyajanya form of nadvrana."

Types of Nadi Vrana

Vataja, Pittaja, Kaphaja, Vata-Pittaja Pitta-Kaphja, Vata-Kaphja, Sannipataja& shalyajanya (Agannija Nadi Vrana) These are the eight types According to Susrutha, According to Vagbhata itis of five types due to Vata, pitta, Kapha, Sannipathaja and sahaj "Treatment according to Ayurveda. Sushruta describes the Samanya Chikitsa (general therapy)of Nodi Vrana as follows: Sushruta has explained separate treatment for all types of Nadi Vrana.Use of Pratisarneeeya Kshara (Caustic alkali) as a general therapy in all sorts of Nadi Vranas indicated when discussing the indications of Pratisarneeeya Kshara (caustic alkali) Performing Bhedana karma (Incision) in all forms of Nadi Vrana described when discussing the signs of Bhedya vrana, Chedana (Excision) is indicated in shalya (Foreign body) lodged in marma (Flesh) in Chedya Vyadhit (Excisional disease).According to above, treatment principle for the Nadi Vrana can be summarized as follows. 1 Surgical incision) Patana Karma signifies that a wise physician should first probe the Nadi Vrana's Gati (tract) and then determine the exact orientation of the track. The entire length of it should then be opened, followed by general Shodhana Ropanudi (Cleaning and healing) operations. 'patana' is represented by Charaka in Nadvrana and Anta-Salya (Foreign body inside body),Para-surgical technique Kshara Karma, Kshra Sutra.

Kshara Karma It is a method in which Bhedana (incision), Chedanu (Excision), and Lekhana (scrapping) are conducted using specially compounded Yogas known. as Kshara (caustic alkali). The patient lie down in a prone position. The tract is next probed to determine its length. An elliptical incision is created around the pilonidal sinus with a knife. The whole sinus tract will be removed all the way up to the presacral fascia. Pratisarneeeya Kahara will be used after the above mentioned Chedana Karma. Wait 100 Matra Kala (1) minute) after applying the Kshara, then cleanse the operation wound with Jambheera Swarasa (lime juice). During the postoperative period, daily dressings will be used until the incision is completely healed.

Kshara Sutra It is a unique method of excision that uses mechanical pressure and chemical action instead of a knife. Sushruta suggests using Ksharasutra in Nadi Vrana for patients who are emaciated, timid, and positioned in the Marma Sthanas (Vital portion). Probing is done via the hole, and the tract is tracked to its blind end, where an opening is formed. After feeding the Kshara Sutra, the probe was retrieved via the generated orifice and correctly ligated; weekly Kshara Sutra changes will be performed until the tract was severed.

Modern concept

A pilonidal sinus is a small hole or tunnel in the skin at the top of the buttocks, where they divide (the cleft. It does not

always cause symptoms and only needs to be treated if it becomes infected

Etiology

Because of male sex hormone, hairy body, greater perspiration, and maceration, the pilonidal sinus has a 74% masculine preponderance. It is more common in children due to an active pilosebaceous gland. Because of their rigid hair, dark folks are less impacted.

Pathogenesis

The buttocks bear the weight of the body while sitting, causing vibration and friction. It induces hair shedding and consequently collects in the gluteal cleft and enters sweat glands. Dermatitis and irritation develop around the loose hair once the hairs first enter. Once the sinus has established, the area's occasional negative pressure may draw more loose hair into the pit. Histological investigation supports the aetiology of pilonidal sinus as a foreign body response. It is seen as an acquired disorder as a result of hair implantation. This is the most widely held theory

Management

Pilonidal disease can be treated conservatively and does not necessarily surgery. Conservative therapy for a pilonidal sinus is shaving any hair in the afflicted area (preferably with hair removal lotion) and keeping the area clean as much as possible. Any pilonidal abscess that forms must be treated like any other abscess, with incision and drainage +/-washout +/-packing. If the patient continues symptomatic, elective surgery for pilonidal sinus disease can be undertaken at a later date. The several minimally invasive treatments available for the treatment of pilonidal illness have the advantages of being generally traumatic and allowing the patient to resume work practically immediately. They are appropriate for tiny lesions that have not previously been surgically treated. These procedures have a greater recurrence rate than excisional treatments. It is unclear if minimally invasive methods using laser or endoscopic technologies can minimise the likelihood of recurrence. Off-midline techniques (the Karydakis procedure, the Limberg procedure, and others) resulted in faster wound healing than excision with open wound treatment; off-midline techniques should thus be preferred for patients who have had previous surgery and for those with large lesions.

Discussions



Fig 1: Pilonidal sinus

There are so many modalities are available in the treatment of Pilonidal sinus nowadays Ksharsutra is becoming more potential to treat Pilonidal sinus. The mechanical and chemical action of thread coated with medication does the cutting, curetting, draining, and cleaning of the sinus tract, but it is time taking process and had to visit repeatedly in hospital for Ksharsutra changing. In ancient times Acharya Sushruta mentions Ksharsutra therapy in Nadivrana chikitsa. This minimally invasive procedure a Ksharsutra has good potential in the management of Pilonidal sinus. It minimizes rates of complication and recurrence and enables the patient to resume work and normal social activities as early as possible. According to Ayurveda the action of Ksharsutra is thought to be due to its healing and cleansing effect in the area where it is applied. In this technique, scar formation is minimal and can be cosmetically supported technique.

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Conclusion

Pilonidal sinus is a therapeutic challenge. Evidence supports both open and closed operative approaches has no much difference in recurrence rate. By doing Ksharasutra and Kshara application recurrence rate is quite negligible since all pits adjacent to sinus track are scrapped. Kshara has anti inflammatory and antibacterial property. Local removal of hair and sitz bath plays an important role in avoiding recurrence rate.

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