A COMPREHENSIVE REVIEW OF GUDA PARIKARTIKA (FISSURE IN ANO) IN AYURVEDA

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Abstract: Fissure in ano is one of the commonest anal disorders with elaborative descriptions available in the texts of modern surgery**.** In Ayurveda, fissure in ano is described by the term *guda parikartika* or simply, *parikartika* and is usually described as a symptom found in other diseases like *arsha*, *grahani*, *atisara*, *udavarta* etc. or as a complication of faulty instrumentation and excessive or improper *panchkarma* (*virechana* and *vasti*) procedures which produce a tear in anal region with features of cutting or tearing type of pain, burning sensation and bleeding during and after defecation. Unlike modern surgery, where the management of fissure in ano revolves around relieving of muscular hypertonia through pharmacological or surgical means, principles of management of *parikartika* in Ayurveda are more focused on stabilizing the digestive functions and improving the nature, character and consistency of stool in addition to the use of laxatives (like castor oil) and wound healing (*vranaropaka*) agents. Hence, the present article reviews and analyzes the whole concept and the management of *parikartika* as described in Ayurveda in the light of the available knowledge in the modern surgical texts about fissure in ano.

***Index Terms* – Fissure in ano, constipation, *parikartika, anuvasana vasti, pichchha vasti*.**

1. INTRODUCTION

Fissure in ano is one of the commonest anal disorders. It can be defined as a painful, linear or oval, ulcer like longitudinal tear in the anal canal distal to the dentate line which is characterized by severe pain and burning sensation during and after defecation with a little bright red bleeding and occasional itching [1]. No age group is spared although the usual victims are younger and middle aged patients with a great predisposition to the posterior midline (90% cases). Anterior midline fissures are more common in females (25% cases) than males (8% cases). Fissures occurring in lateral sectors of anal canal are not common and are usually secondary to diseases like crohn's disease, tuberculosis, syphilis, HIV/AIDS or in anal carcinoma. Primary fissure is subdivided into acute or chronic types; while acute appearing as a simple linear tear in anoderm, the chronic fissure appears as a deeper, oval ulcer with scarred edges and edema and fibrosis of the ulcer bed and the secondary changes like hypertrophied papilla (at proximal end), sentinel tag (at distal end), anal cryptitis and/or anal fistula [1, 2]. The basic pathological mechanism making the anoderm area vulnerable to the occurrence of anal fissure has been demonstrated to be the raised resting anal pressure due to muscular hypertonia and the relatively deficient vascular supply in the posterior part of anal canal [3, 4]. Either or both of these mechanisms underlie the causation of fissure in ano by factors like low fiber diet, constipation, diarrhea or colitis, prolonged sitting, trauma to anal canal due to passage of hard stools or by other means etc. and hence, the use of pharmacological treatments (topical nitrates, calcium channel blockers, botulinum toxins, adrenergic antagonists, cholinergic agonists etc.) and surgical approaches like anal dilatation and sphincterotomy aim at to correct these underlying pathological mechanisms.

In Ayurveda, fissure in ano is described by the term *guda parikartika* or simply, *parikartika* which means a sensation of being cut around with a scissor ('*pari'* means around, '*kart'* means to cut with a scissor) or a type of a cutting or tearing pain [5, 6]. It is usually described as a symptom found in other diseases or as a complication of faulty instrumentation or improper *panchkarma* (*virechan* and *vasti*) procedure. Present article reviews and analyzes the whole concept and the management of *parikartika* as described in Ayurveda in the light of the available knowledge in the modern medical science about fissure in ano.

2. ETIOPATHOGENESIS OF *PARIKARTIKA*

As mentioned above, *parikartika* is not described as an independent disease entity in Ayurveda; rather, it has been presented as a symptom found in other diseases or as a complication of some procedures. The various etiological conditions described in Ayurveda for *parikartika* can be described under the following subheadings.

2.1 *Parikartika* as an Associated Symptom in Other Diseases

- ***Jwara*** – In cases of long standing fever (*jeerna jwara*), faeces becomes hard due to decreased appetite and dehydration and may cause a crack or tear in anal region while passage of stool [7].
- ***Vataja Grahani*** – *Parikartika* has been enumerated as a symptom of *vataja grahani*. While describing the etiology, *Charaka* has mentioned the excessive intake of bitter, pungent and astringent (*katu-tikta-kashaya*) foods or the food items which are too dry (*atirooksha*) or cold (*atisheeta*) or fasting and to suppress the urge of defecation. All these factors contribute to make the faeces dry and hard which may cause fissure in ano while defecation [8].
- ***Vataja Pakwatisara*** – In later stages of *vataja atisara*, when the tonicity of anal musculature increases (i.e. there is a spasm) and there is frequent passage of very little but hard and frothy faeces with pain, *guda parikartika* occurs [9].
- ***Malavritta Vata*** – It demonstrate the stage of chronic constipation due to slow transit or low motility functions causing abdominal distention, pelvic pain and passage of dry and hard faeces leading to fissure in ano [10].
- ***Vyanavritta Apana Vayu*** – Here also, due to reverse peristaltic movements or disrupted motility functions of colon and rectum, *parikartika* occurs in addition to distention and vomiting [11].

- ***Pureeshavrodhajanya Udavarta*** – Due to suppression of urge of defaecation, faeces are pushed back into the colon wherein, due to further absorption of water, faeces becomes dry and hard which then causes anal fissure during defecation [12].
- ***Kaphaja Arsha*** – The symptoms of *kaphaja arsha* includes the frequent passage of stool mixed with mucus and tenesmus i.e. the suggestive features of colitis which lead to development of anal fissure due to repeated trauma to anal canal [13].
- **Prodromal symptom of *Arsha*** – The causative factors described for *arsha* mostly includes the dietary factors which lead to derangements in the digestive functions and hence lead to features of dyspepsia, flatulence and alteration of bowel habits i.e. either constipation or colitis like features, both of which predispose to the development of anal fissure [14].

2.2 *Parikartika* as a Complication of *Panchkarma* procedures

- **Complication of Excessive *Virechana*** (purgative therapy) – Both *Charaka* and *Sushruta* has against the excessive use of purgation or strong purgation in a weak and emaciated person as it may lead to the development of fissure in ano [15-16].
- **Complication of Excessive use of *Vasti*** (medicated enema therapy) – *Charaka* has also enumerated fissure in ano as a complication due to excessive use of *vasti* therapy [17].

2.3 *Parikartika* due to Trauma in Anal region

Apart from trauma due to passage of hard stool, other causes like use of defective enema nozzle or improper administration of enema nozzle may also develop a painful tear in the anal region and may cause fissure in ano [18-19].

3. TYPES & SYMPTOMATOLOGY OF *PARIKARTIKA*

The cardinal feature of *parikartika* has been described to be a sensation of being cut around with a scissor [5]. *Dalhana* has mentioned it as a cutting or tearing type of pain [6]. In addition, *Sushruta* has mentioned burning sensation in anal, perineal and umbilical region with blockage of flatus as a symptom in *parikartika* caused due to excessive purgation [16]. Again, in context of diarrhea (*atisara*) management, *Sushruta* has also mentioned the symptom of bleeding before and after defecation in patients with *parikartika* [20].

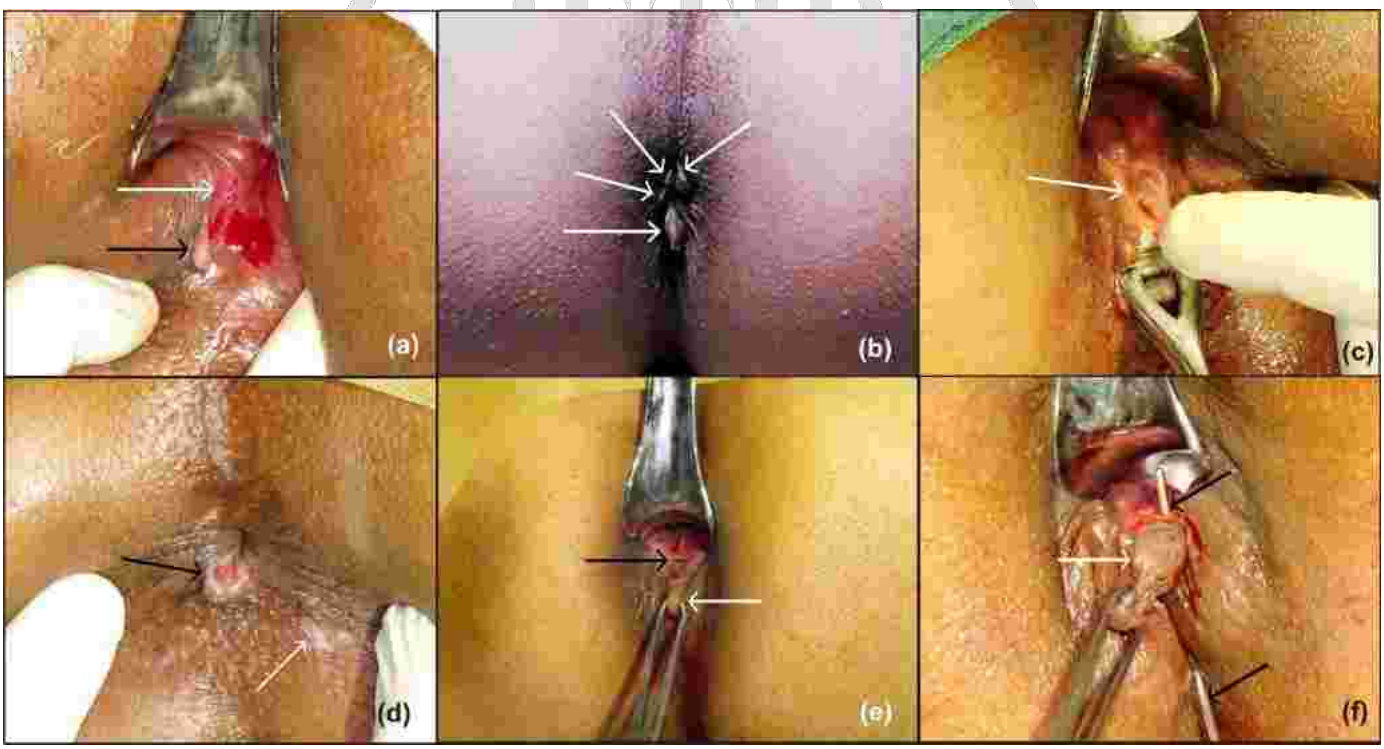

Fig. 1: Different presentations of *guda parikartika* (fissure in ano) (a) Ulceration (white arrow) with bleeding and small skin tag (black arrow) (b) Multiple skin tags (c) Chronic fissure bed with edema and fibrosis (white arrow) with skin tag held in forceps (d) Chronic fissure bed (black arrow) with fistula (white arrow indicating external opening) (e) Chronic fissure (black arrow) with tag (white arrow) and cryptitis (black arrow head) (f) Large skin tag (white arrow) with probe in fistulous track (black arrow).

Apart from this, it has also been tried to classify *parikartika* on the basis of *dosha* involvement and the site of pathology as well. *Charaka*, while describing the bad prognosticating symptoms, has classified *parikartika* into two types; first being caused due to upper gastrointestinal pathology wherein it is associated with diarrheal features and second being caused due to colonic pathology wherein it is associated with severe constipation or obstruction to flatus and faeces [5]. In *Kashyapa Samhita*, the occurrence of *parikartika* during pregnancy has been mentioned. It is recommended to be managed according to the *dosha* (*vata*, *pitta* or *kapha*) involved which is to be assessed on the basis of nature of pain (cutting, burning or itching) and the character of stool (dry and hard, with bleeding or with mucus discharge) [21].

Hence, it can be said that the features of fissure in ano like pain as if being cut with a razor, burning sensation and bleeding during and after defecation, described in modern surgical books [1], are also described in Ayurveda in more or less same manner.

4. MANAGEMENT OF *PARIKARTIKA*

As *parikartika* has been defined as a symptom or complication of other diseases, the treatment of *parikartika* has also been described in the context of respective diseases or the complications. Both systemic (to correct the digestive functions and the underlying disease) as well as local (to relieve pain and promote ulcer healing) management have been proposed in different contexts by different texts in Ayurveda which can be broadly classified as described below:

- **Stabilizing the Digestive functions by Diet and Medicines**: Considering the importance of low appetite and decreased digestive functions, various medicated dietary preparations have been proposed. For example, in cases of chronic fever (*jeerna jwara*) when the faeces have become dry and hard due to dehydration and low appetite, patient is advised to take soupy diets prepared by adding raw *bilwa* powder in the decoction of *bala*, *vrikshamla*, *kola* etc. Also, the milk fortified with the decoction of castor roots or the pulp of raw *bilwa* is beneficial to relieve *parikartika* [7, 22]. Similarly, uses of butter-milk and of medicated ghee prepared from the drugs which improve appetite have been indicated to stabilize the digestive functions in cases of *kaphaja arsha* and *vataja grahani* respectively [23, 24]. *Kashyapa* has advised to treat the *parikartika* in a pregnant lady with the use of medicated *yusha*, a special kind of a semisolid dietary preparation described in Ayurveda [21].
- **Use of Laxatives**: In cases of *malavritta vata* or *vyanavritta apana vayu* or in *udavarta* where constipation is the main culprit, use of laxatives (like castor oil) in addition to a fat rich diet has been prescribed so that the faeces become soft and evacuate easily without causing any further frictional trauma to the ulcer which then heals gradually [11, 25, 26].
- **Use of *Vasti* therapy**: In cases of *parikartika* occurring due to excessive purgation therapy, use of *pichchha vasti* (medicated enema with astringent properties) prepared from honey, ghee, black sesame and *madhuyashti* (*Glycyrrhiza glabra*) and *anuvasana vasti* (oil based medicated enema) prepared from *madhuyashti* etc. has been recommended [15, 16]. Both of these types of *vasti* preparations are also indicated in cases of *parikartika* due to excessive *vasti* therapy [27]. These preparations are helpful in controlling diarrhea and lubricate the anorectal region as well and thus facilitate the healing of ulcer.
- **Use of *Vranaropaka* (wound healing) agents**: Though in most of the cases, the correction of systemic causes itself helps in healing of the ulcer; however, the cases where anal trauma due to reasons like faulty instrumentation has produced the ulceration in anal canal, the ulcer should be treated on the principles of wound management [19]. Use of medicated oils or ghee prepared from drugs like jasmine, neem, sesame etc. help in healing of the ulcer.
- **Use of *Kshara* and *Ksharasutra***: Nowadays, *kshara* application and ligation of *ksharasutra* in cases of chronic fissure is also being advocated by many scholars and practitioners of Ayurveda [28, 29]. Though these methods are not advised to be applied in cases of fissure in ano in ancient texts of Ayurveda, these are being practiced in chronic fissure keeping in mind the role of *kshara* in wound bed preparation. However, no substantial proof is yet available to validate the efficacy of these approaches in cases of fissure in ano.

5. CONCLUSION

Though not mentioned as an independent disease entity in Ayurveda, an elaborative description of *guda parikartika* is available in various contexts in different texts of Ayurveda which is in much agreement with the etiology and symptomatology of fissure in ano described in modern surgery. The clinical features of a painful tear in the anal canal with bleeding and burning sensation caused by dietary factors, anal trauma due to hard feaces or other causes and the conditions with increased frequency of defecation like diarrhoea and colitis, along with the description of fissure in ano during pregnancy is available in both, Ayurveda and the modern surgical texts. The principles of management, however, follow a slightly different approach with modern surgery focusing more on to relieve the muscular hypertonia of anal sphincters by pharmacological as well as surgical means, Ayurveda being more focused on stabilizing the digestive functions and improving the nature, character and the consistency of the stool with no surgical approach being defined for *guda parikartika*. Use of laxatives and wound healing agents is however a common approach followed in both the systems.

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