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Original Research Article

Pruritus Ani: Associated Surgical Conditions, a Retrospective Analytic Study

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Abstract

Background: Pruritus ani is an unpleasant cutaneous sensation, and its symptoms are characterized by varying degrees of itching around the anal orifice. It is a common proctologic problem and many physicians believe that it amounts due to hemorrhoidal disease. This study addresses the etiology and underlying disease.

Methods: This was a retrospective study of 100 patients of all age and sex who presented to skin and surgery OPD of NMCH Kota were included in the study.

Results: Perianal fecal contamination was found in 43% of the study population while perianal infection (Bacterial and fungal) in 15% patients. Contact dermatitis and neoplasia were found in 3% of patients. Hemorrhoids were found most prevalent while fistula and fissure were less commonly found in our study. Amongst post surgical patients post fistulectomy suffered maximum (65%) with pruritic ani followed by hemorhoidectomy(27%).

Conclusion: The majority of pruritis ani patients can still be managed with great success with the elimination of irritants and scratching, general control measures and active treatment measures.

Introduction:

Pruritus ani is the Latin term for "itchy anus" and elaborates all the conditions that result in itching and irritation in the perianal skin. Pruritus ani is an unpleasant cutaneous sensation, and its symptoms are characterized by varying degrees of itching around the anal orifice [1]. Pruritus ani is a common proctologic problem and many physicians believe that it amounts due to hemorrhoidal disease. The exact incidence worldwide is unknown, but men are affected more often than women by a ratio of 4:1. Most patients are distributed in the 30-70 age group and it is particularly prevalent in the 40-60 age group. [2,3]

This study addresses the etiology of pruritus ani, and its underlying disease. The pathophysiology of itching in general is thought to be related to the C-fibers in the skin. Histamine, bradykinin, and kallikrein, among other substances, have been implicated in itching. [4,5] Because of this, directing treatment to one pathway is unlikely to resolve symptoms in all patients. Scratching to relieve the itch can

cause further excoriation and inflammation, which leads to additional stimuli of the nerve fibers. This "itch–scratch–itch" cycle is difficult for patients to break, complicating treatment efforts.

Causes of pruritus ani can be roughly classified into secondary and idiopathic with 25 to 75% attributed to an identifiable source. Secondary causes are subdivided into local irritation, infection, inflammation, systemic diseases, and neoplasms. [6] Many of these conditions have a myriad of presentations, one of which might be pruritus. Mostly a single attributable etiology is never found, or several putative etiologies are identified.

History taking does not lead to accurate anal diagnoses [7]. We investigated the types and frequencies of anal complaints with respect to anal findings at proctologic assessment using the left lateral position.

Aims and objective:

1. Retrospective analysis of etiological factors for pruritus ani.
2. To identify the associated surgical disease.
3. Comparison of pruritus ani in different post surgical patients.

Material and Methods:

Participants

Patients of all age and either sex presented to skin and surgery OPD of NMCH Kota were included in the study. Individuals were questioned about anal Pruritus and any Co-existing skin disease like atopy, urticaria and other allergies. History of previous patch testing, illness, diarrhea and treatments such as antibiotics and steroids were also asked. Patients were also asked about certain food intake like Coffee (caffeinated and decaffeinated), Tea, Cola, Other caffeinated drinks, Alcohol, especially beer and wine Chocolate Tomato including ketchup (histamine) [16]. Post operative patients for any perianal disease were also included in the study. They were asked about disease and surgical method adopted for the disease.

A full perianal examination was performed. Swab for perianal infection were collected before internal examination. Perianal inspection for anal tag, anal fissure and fistula was also done. Proctologic assessment was performed in the left lateral position by inspection of the anal verge followed by digital examination of the anal canal, and anoscopy. Colonoscopy or proctoscopies were performed if necessary. Demographic data was recorded. Signs and symptoms related to anal Pruritus like anal bleeding per rectum, anal itch, anal pain or discomfort, anal burning (baking), anal soreness, anal lump, fecal soiling, anal weeping, anal mucous, anal incontinence, dubious abdominal pain, constipation and diarrhea. Duration of disease and past treatment history were recorded.

Grading and staging of anal Pruritus was done according to Brossy [8], Gayle [9], Granet [10], Mentha [11], Fazio [12, Tucker 13], and Smith [6] [**Table 1**].

Table 1. Grading and staging of anal Pruritus [6,8-13]

Grading	staging	Definition
Mild	Stage 1	No lesion seen at inspection of anal verge but the patient finds palpation and/or anoscopy painful, and other anal lesions have been excluded (figure 5).
Moderate	Stage 2	Red dry skin only (figure 6), at times weeping skin with superficial round splits and longitudinal superficial fissures. (figure 7).
Severe	Stage 3	Reddened, weeping skin, with superficial ulcers and excoriations disrupted by pale, whitish areas with no more hairs (figures 8 and 9).

Chronic	Stage 4	pale, whitened, thickened, dry, leathery, scaly skin with no hairs and no superficial ulcers or excoriations (figures 10 and 11).

Definition of concomitant anal findings (CAF) found at inspection of anal verge during proctologic assessment were recorded. Skin tags are hypertrophied redundant folds of perianal skin" . Funnel shaped anus "The buttocks are permanent in touch with each other and have to be parted firmly to be able to inspect the anal verge". Hairy anus "Hairs spread out almost carpet like to the anal verge" [14,15].

Statistics

Frequencies and percentages were calculated for categorical data such as the male to female ratio, history of symptoms, and anal lesions.

Consent

Consent was taken from each of the patient after explaining them about the study which is not supposed to harm them.

Ethical justication

This planned study was undertaken in patients of all clinical types of anal pruritus irrespective of age and sex. This is a non-interventional, retrospective study, which will cause no harm to the patients. Informed consent for blood sampling as routine in was taken from each enrolled patient in study. Moreover, the patients who may deny to participate would be excluded from study without asking for any reason thereof.

Result:

There were 100 patients were included in the study out of which 67 were male and 33 were female patients.

There were 23 post operative patients who were operated for various perianal diseases. Retrospective analysis of etiological factors for pruritus ani was done. Perianal fecal contamination was found in 43% while perianal infection (Bacterial and fungal) was found in 15% patients. Contact dermatitis was found in 25% patients while neoplasia was diagnosed in 3% patients. Benign perianal diseases were found in 45% of patients. On comparison amongst post surgical patients post fistulectomy suffered maximum (65%) with pruritus ani followed by hemorrhoidectomy(27%). Patients who were operated for fissure in ano suffered least with pruritus ani(8%).

Discussion:

Itching of the anus is a common condition afflicting up to 5% of the population2. The incidence of primary and secondary pruritus ani varies among different studies. Several studies show that the incidence of idiopathic pruritus ani is 75–95% [9]. Other authors have found that its incidence is only 25% [10]. Characteristically, pruritus ani is exacerbated by friction or a warm moist perineal environment. Poor anal hygiene or, in contrast, overcleansing with soap is often a contributing factor. Patients with idiopathic pruritus ani have been found to have abnormal transient internal sphincter relaxation [11] and an abnormally profound decrease in anal canal pressure during rectal distention, as well as early incontinence on saline continence tests, implying that intermittent seepage from the anal canal may be a causative factor [12]. The incidence of pruritus ani ranges from 1% to 5% in the general population. Men are more commonly affected than women with a 4:1 ratio and this condition is most common in the fourth to sixth decades of life. [2,3,4] In our study men were also more affected whichis similar to the studies available in the literature.

Retrospective analysis of the etiological factors for pruritus ani was also performed.

In our study perianal fecal contamination was found in 43% of the study population which is similar to the other recent available studies. Smith LE at al found 50% of patients with pruritus ani to have loose stools and this group reported at least weekly faecal soiling in 41%6. Contact dermatitis was found in 25% of the pruritus ani patients in our study. Harrington CI et al found 69% were positive in a skin patch test study and 38 of 55 cases were from therapeutic agents7.

In our study 23% patients were diagnosed to have various perianal anorectal disease. Hemorrohoids were found most prevalent while fistula and fissure were less commonly found in our study. In various studies Up to 52% of patients with pruritus ani have anorectal disease with haemorrhoids being the commonest condition [9,10].

Amongst post surgical patients post fistulectomy patients were presented most with pruritus ani as in those patients open wound serous or seropurulent discharge make the perianal area moist which might be the reason of pruritus ani.

In post hemorrohoid surgery patients the surgery reduces the anal tone. Altered anal morphology may lead to faecal soiling and this could be a primary or post surgical problem. These individuals seem to be unable to evacuate their anal canals completely and the retained faecal material escaped later with resultant itch [6].While in contrast Pirone et al. suggested that anal surgery contributed to the elimination of peri-anal fungal infection and together reduced pruritus [20].

Anxiety, stress and certain personality traits may contribute and they should be treated concurrently. In fact, pruritus ani may be a manifestation of depression or psychological disturbance [6,21]. However we did not included these psychological causes in our study. [22]

Treatment of idiopathic pruritus ani is non-specific and is aimed at restoring clean dry intact skin. The perineum must be gently cleaned with water after defecation. Avoidance of impervious underwear, such as acrylic and nylon garments which trap sweat, and use of a drying powder may be helpful. Short term use of topical steroids for up to one month is useful for patients with dermatosis. Some patients with idiopathic pruritus ani respond favourably to such conservative management. Unfortunately, a significant percentage remains very difficult to treat and represents an important clinical challenge. Most of these attempts have had limited success, and some have had significant side effects.

Conclusions

Pruritus ani has many causes mostly dermatological or anorectal, treatment of which results in regression of symptoms and skin changes. Hemorrhoids were found as the most prevalent disorder associated with pruritus ani while post fistulectomy patients presented most with the symptoms of pruritus ani. These patients of pruritus ani can still be managed with great success with the elimination of irritants and scratching, general control measures and active treatment measures.

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