INTRODUCTION:

A perianal abscess is an acute phase manifestation of collection of pus [1] that arises from infection of cryptoglandular epithelium lining the anal canal or from a skin infection. Perianal abscesses account for the most common variety of anorectal abscesses. They represent approximately 60% of reported anorectal abscesses[2]. The prevalence of perianal abscesses in the general population is much higher than seen in clinical practice since most patients with symptoms referable to anorectum do not seek medical attention.

Perianal abscesses are more common in men than women. Although perianal abscess is common in healthy individuals there are other risk factors that are strongly associated such as diabetes, crohn’s disease, obesity, immunosuppression, anal fissure etc.

Perianal abscess can expand into nearby tissues (eg, supralevator space, ischiorectal space) if undrained or may progress to a generalized systemic infection. In most of the patients surgical drainage under general or local anaesthesia is needed to alleviate pain and sepsis. Subsequently 15-47% of such patients suffer recurrent abscess and fistula in ano formation after the surgical drainage.

Isolation of gut specific organisms from the pus from a perianal abscess would suggest that a fistula may be present and a careful review of the case is necessary.

Surgical drainage is the cornerstone of treatment for perianal abscesses. It aims only at controlling infection of the adjacent structures. The anal sphincters may get damaged if the perianal abscesses are untreated or inadequately treated.

This study describes the incidence of perianal abscess in different sex and age groups, the complications and the risk factors associated.

SUBJECTS AND METHODS:

In this study 100 patients with perianal abscesses, who presented with acute swelling in the perianal region at Government Kilpauk Medical College Hospital in Chennai from January 2015 to July 2015 (7 months) were included. Detailed history, examination and basic routine investigations done for all patients. Pus drained by I&D sent for pus C/S and appropriate antibiotics started. Patients followed up for recurrence and development of complications.
RESULTS:

In this study 100 patients with perianal abscesses were studied. Of the 100 patients 63 patients were male and 37 patients were female. As per Mehmet Ulug et al [3] who did a study on “The evaluation of bacteriology in perianal abscesses of 81 adult patients” 86% were male patients and 14% were female patients and the mean age of patients was 40.5+11.3 yrs in males and 35.8+13 yrs in females. In this study 63% were males and 37% were females and the mean age of male and female patients was 42.3+11.8 yrs (range 21-80) and 37.6+7.4 yrs (range 19-50) respectively.

In the report by Ramanujam et al the age of the patients ranged from 10 yrs to 82 yrs with 65% of patients in their third to fourth decade of life. In this study patients ranged in age from 19 – 80 yrs with 53% of patients in the age group of 21-40 yrs and 41% of patients in the age group of 41-60 yrs.

In a report by Hill et al [4] the number of male patients with perianal abscess were twice the number of female patients. As per the study by Ramanujam et al [5] on “Perianal abscesses and fistulas” involving 1023 patients, the male to female ratio was 2:1. In this study the male to female ratio is 1.7:1.

Perianal pain (100%) and swelling (62%) were the most common clinical findings recorded in the study by Mehmet et al. In this study the most common presenting feature was pain which was present in all patients (100%) followed by swelling (78%), fever (23%) and discharge (6%).

Majority of patients had abscess located in the posterior aspect (53%) of anal canal as per Ramanujam et al, followed by lateral (35%) and anterior (12%) positions. In a review by Vasilevsky and Gordon [6] on “The incidence of recurrent abscesses or fistula-in-ano following anorectal suppuration” laterally placed abscesses were recorded with much higher incidence and four posteriorly located horse shoe abscesses were present. In this study majority of patients had abscesses in the lateral location with 34% of abscesses in the right lateral side and 31% of abscesses in the left lateral side, followed by 29% of abscesses in the posterior location and the least (6%) in the anterior relation of anal canal.

Smoking and alcoholism was noted in 15 patients. Twelve patients were alcoholics and five were smokers. Both alcoholism and smoking was noted in 2 patient.

Incision and drainage of abscess was done in all patients and antimicrobial therapy was given to all.

Of the 100 specimens, all except 10 specimens yielded bacterial growth. Aerobic bacteria only were isolated in 80 patients (80%), anaerobic bacteria only in 4 patients (4%), mixed aerobic and anaerobic bacteria in 6 patients (6%). A total of 10 anaerobic and 86 aerobic isolates were recovered from 100 abscesses. The predominant isolates were Escherichia coli (n = 39), Staphylococcus aureus (n=16), Proteus mirabilis (n=12), Enterococcus spp. (n=11), Bacteroids fragilis (n=10), Klebsiella (n=9).

In the study by Mehmet et al 7 specimens yielded no bacterial growth. Aerobic bacteria alone were isolated in 53% of patients, anaerobic bacteria alone in 9.9% patients and mixed aerobic and anaerobic bacteria in 28.4% of patients. A total of 31 anaerobic and 101 aerobic organisms were cultured from 81 abscesses. The predominant anaerobic organisms were Bacteriodes s (n=20) and Peptostreptococcus (n=6). The predominant aerobic isolates were Escherichia coli (n = 36), coagulase-negative Staphylococci (n = 16), Enterococcus (n = 11), and Staph. aureus (n = 10).

Most of the organisms were sensitive to piperacillin-tazobactum (36%), followed by ofloxacin (32%),
According to Mehmet Ulug et al. a predisposing condition was present in twenty eight (34.5%) patients. A single comorbid condition was present in 15 patients, two comorbid conditions were present in 12, and three comorbidity were present in two. Diabetes (22.2%), obesity (8.6%), and malignancy (6.1%) were the most common underlying comorbid conditions.

In this study an underlying condition was present in 34 patients out of 100 patients. A single condition was present in 24 patients, two comorbid conditions were present in 9, and three comorbidity were present in one. Diabetes mellitus (23%), hypertension (6%), and obesity (13%) were the most common conditions. One patient had AIDS and another one patient had HBsAg infection.

The patients were followed for a period of three months. In this study 94% of patients developed no complications. Complications occurred in six patients. Of these five patients developed fistula in ano and one presented with recurrent abscess. According to Mehmet ulug et al. complications were noted in 38% of patients, most common being fistula in ano (27%), followed by recurrence (9%) and sepsis in one patient.

DISCUSSION:

Perianal abscesses are very common. They are more common in men than in women.

Majority of the aerobic and anaerobic organisms cultured from the perianal abscesses are of GIT and skin flora origin. The isolation of anaerobic bacteria together with aerobic organism is not surprising since anaerobes are the predominant organisms in GIT. Isolation of gut specific organisms from the pus from a perianal abscess would suggest that a fistula may be present and a careful review of the case is necessary. Whereas if skin organisms are grown in culture further evaluation is unnecessary.

Incision and drainage is the main treatment for perianal abscess. This is important because the abscess environment (low PH, capsule of the abscess, and the presence of binding proteins ) is detrimental to the effectiveness of antibiotics. Although antibiotics may prevent suppuration if given early or may prevent spreading of an abscess, they cannot be substituted for drainage of abscess.

With appropriate drainage of the abscess most of them resolve. An anal fistula indicates a chronic phase of an unhealed abscess. Because of this after drainage of perianal abscesses it is advised to do careful examination under anasthesia seven to ten days later when the results of culture and sensitivity are available to look for an underlying fistula. If the followup is done for one year the complications can be described better.

Conflicting interest: No conflicts of interest.

Ethical approval: Ethical committee approval obtained.

REFERENCES:

3. Mehmet Ulug et al; Ercan Gedik, MD; Sadullah Girgin. The evaluation of bacteriology in perianal abscesses of 81 adult patients; Braz J Infect Dis vol.14 no.3.