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Original Research Article

The Clinico-Epidemiological Study of Balanoposthitis

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Conflict of interest: Nil

Abstract

Background: In this study we wanted to evaluate the socio-demographic profile of the patients with balanoposthitis. We also wanted to study the factors causing balanoposthitis in the age group of 18-60 years in relation to systemic diseases.

Methods: The present study is an observational prospective study with a sample size of 50. Detailed history, clinical examination (local and systemic), Bedside investigation, KOH, Gram stain and Tzanck smear. Lab investigation which included urine routine, CBC, ESR, RBS, HIV I & II, VDRL, Hepatitis B, Culture and Sensitivity were done.

Results: It was observed that maximum number of patients with balanoposthitis were in the 31-40 age group (42%). The next predominant groups affected were 20-30 &41-50 respectively 34% and 16% each. majority of patients with balanoposthitis belonged to middle income group (56%) and only 32%of patients belonged to low-income group followed by 6 patients belonging to high income group (12%).

Conclusion: Balanoposthitis is very commonly encountered condition in the STD clinics. Balanoposthitis has many predisposing factors with a multifactorial aetiology. It is most commonly seen in the sexually active age group and in majority of cases exposure to STD plays a major role. The various precipitating factors like smegma, urine, alkaline vaginal discharge, friction of clothing, vaginal pathogens of unhygienic contacts.

Keywords: Sociodemographic Profile, Balanoposthitis, Aetiology

Introduction

The inflammation of the non –keratinized epithelium of the glans penis (i.e., Balanitis) and that of prepuce (i.e., posthitis) together comprise the term Balanoposthitis. The term Balanitis is defined as Inflammation of the glans penis because in uncircumcised males its commonly involves the prepuce the correct name for Balanitis is Balanoposthitis. Balanitis is defined as inflammation of the glans penis, which often involves the prepuce (Balanoposthitis). Balanoposthitis may be associated with phimosis, the inability of the prepuce to be retracted over the coronal edge of the glans penis [1].

The two words Balanos and Posthe for glans and prepuce respectively have their origin from Greek literature. Balanoposthitis is seen very frequently, and it can be a recurrent or persistent condition.

There is a wide variety of causes and predisposing factors [1]. Risk factors for balanoposthitis are i) uncircumcised, ii)

congenital and acquired phimosis, iii) poor genital hygiene, iv) lack of safe sex practices, v) diabetes mellitus and vi) urinaryincontinence.

Aims & Objectives of Study

1. To know the socio-demographic profile of the patients with Balanoposthitis.
2. To know the factors causing Balanoposthitisin the age group of 18-60 years in relation to systemic diseases.

Materials & Methods

The present study is an observational prospective study with a sample size of 50. Detailed history, clinical examination (local and systemic), Bedside investigation, KOH, Gram stain and Tzanck smear. Lab investigation which included urine routine, CBC, ESR, RBS, HIV I & II, VDRL, Hepatitis B, Culture and Sensitivity were done.

Inclusion Criteria:

1. All male patients in the age group of 18-60 years.
2. All the patients with the clinical features of balanoposthitis.

Exclusion Criteria:

1. The patients with severe mental illness and physically handicraft.
2. The patients with previous history of application of topical medication.
3. Those not willing for giving consent.

Results

It was observed that maximum number of patients with balanoposthitis were in the 31-40 age group (42%). The next predominant groups affected were 20-30 & 41-50 respectively 34% and 16% each. majority of patients with balanoposthitis belonged to middle income group (56%) and only 32% of patients belonged to low-income group followed by 6 patients belonging to high income group (12%). The incidence of balanoposthitis was found mostly among married patients (78%) than others and followed by unmarried (22%). Incidence of Balanoposthitis was most among businessmen followed by Manual labourers (16%), drivers (14%), agricultures (14%), students (10%) and office workers (08%). ost cases who presented with balanoposthitis gave a history of exposure to STD risk, out of which, 5 cases (10%) had history of multiple exposure, 17 cases (34%) had single exposure and 28 cases (56%) had none. commonest complaints made by patients in this study group was itching genitalia (24%) followed by pain (20%), Fissuring of fore skin (18%), Sore penis (12%), and discharge (10%). In the present study out of 50 cases of balanoposthitis, those of infective aetiology was the commonest with 30 cases (60%), followed by miscellaneous causes with 11 cases (22%), allergic cases (18%). Out of these infective causes, 18 of the cases were associated with DM and most of the candidial balanoposthitis patients are diabetes. In bacterial infections, 3 cases were secondary syphilis and 1 case of gonococci.

Discussion

In the present study of 50 cases of Balanoposthitis, it was found that majority of cases were between 20 and 40 years of age (76%) with those belonging to 20-30 years age group constituting 34%.This is in agreement with other studies where it was found that majority of patients belongs to those age group in which a person was most active sexually. Vinod Sharma et al [2] found an incidence of 73% in the 22-40 year age group with 10% in teenagers and 17% in those who were 40 years of age (Age range from15-68 years with a mean age of 31 years).

V.R. Krishna Murthy et al [3] found 67% of cases in the 15-30 year age group. The age of the patients ranged from 15-75 years.

In the present study out of 50 cases, 39 cases were found to be married (78%) , 11 cases were unmarried (22%). N.K. Singhi et

al found in their study 75% cases to be married out of 120 cases studied. Totally 44 % of patients gave history of exposure to STD risk before the onset of balanoposthitis. So, exposure to STD risk plays one of the predisposing factor in the causation of Balanoposthitis as vaginal pathogens of unhygienic sexual contacts plays a major role.

N.K. Singhal et al [4] found in their study 75% of cases gave history of exposure to sexual contacts few days prior to the development of lesions

In the present study percentage of patients giving various complaints were - itching (24%), pain (20%), fissuring of fore skin (18%), sore penis (12%), and discharge (10%) in decreasing frequencies similar to V.R. Krishna murthy et al [3]

In the present study percentage of patient presenting with various clinical signs were - erythema (24%), Erosions (22%), inflammation(20%) Sub preputial deposits (16%), subpreputial discharge (14%) Fissuring of skin (14%), Ulcers (04%), phimosis (04%) and urethral discharge (02%). N.K. Singhi et al [4] found in their study - superficial erosions and ulcers in 40%, excessive deposition of whitish material in 50%, fissuring of foreskin in 25% and phimosis in 5%.

In the present study of 50 cases, infective causes were found be the aetiology for 60% of cases.

This is in comparision with study done by V.R. Krishna murthy et al who found an incidence of 65.74% for infective causes.

The next commonest aetiological factor found in the present study was miscellaneous causes accounted for 22% and which included various ulcerative STD conditions like primary chancre, chancroid, granuloma inguinale and papulosqumous disorders like psoriasis and lichen planus. Allergic causes of balonoposthitis were seen in 9 patients (12%) out of which FDE constituted 10%, irritant dermatitis 4%, and erythema multiformae 4%. Out of 30 cases of infective origin (60%), the most common infective agent found in this study causing balanoposthitis was candid sp. in 15 patients (30%). Bacterial causes seen in 7 cases (14%). Viral causes –condylomata acuminata (HPV) in 3 cases (6%), herpes progenitalis in 3 cases (6%).

Parasitic causes - scabies in 2 cases (4%). Vinod Sharma et al[2] reported in their study- out of 110 cases of balanoposthitis, yeast and other fungi isolated in 30, out of which candid was isolated in 23 patients but pure growth is obtained only in 8 patients along with anaerobes and aerobic organisms.

European studies demonstrated that candid species are the most common cause of infectious balanitis and contributed 30% to 35% of all cases [5].

Conclusion

Balanoposthitis is very commonly encountered condition in the STD clinics. Balanoposthitis has many predisposing factors with a multifactorial aetiology. It is most commonly seen in the sexually active age group and in majority of cases exposure to STD plays a major role. The various precipitating factors like smegma, urine, alkaline vaginal discharge, friction of clothing, vaginal pathogens of unhygienic contacts. The exact aetiological diagnosis requires appropriate investigations as guided by clinical features; sometimes it is very difficult to establish the exact aetiology particularly when laboratory facilities are inadequate.

Infective causes dominated over the other possible causes, as evidenced by the fact that candidial infection formed the aetiology in a fairly significant number of cases. However, it may be appreciated that about 30% of the candidial infection had diabetes mellitus as a predisposing factor. Balanoposthitis can be quite distressing to the patient by virtue of its tendency to be recurrent in a sizeable number of patients. One important aspect of the treatment that often does not receive sufficient attention is

genital hygiene. Hence, it may be concluded that proper health education will have an immense value in the management of this category of patients. Also an education about STDs and his preventive measures to people at risk may decrease the incidence of balanoposthitis and STDs.

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