

Demographic profile of Genital Molluscum Contagiosum : A hospital based retrospective study

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Abstract

Background

Molluscum contagiosum (MC) is a common cutaneous viral infection caused by a poxvirus, manifested by discrete, papular, pearly lesions with central umbilication. MC virus (MCV) is transmitted mainly by direct contact with infected skin which can be sexual, non-sexual, or autoinoculation. There are very few studies particularly on demographics of genital molluscum contagiosum. The aim of this study was to identify and assess the risk of infection in the target population, to build awareness regarding infection being sexually transmitted in urban and migrant population in NCR of Delhi. In the present study, an attempt was made to review all the patients of genital MC attending the OPD of the Department of Dermatology, Venereology, and Leprosy of Santosh Hospital in a period of 7 months.

Aims

This case series aimed to study the demographic profile of patients diagnosed as genital molluscum contagiosum who visited Santosh Hospital, located in NCR region of Delhi . It was a retrospective study spanning 7 months, between 1st September 2021 to 6 th April 2022. The hospital is located in National Capital region of Delhi, it caters to urban and neighbouring rural areas and also migrant population from Uttar Pradesh. The aim of the study was to identify high risk groups so that infection is diagnosed and treated early and the disease burden is reduced. There are many studies on MC but very few on genital MC.

Material and methods

Medical records of patients attending OPD of Santosh Hospital , Ghaziabad were studied in the period mentioned . The patients diagnosed with genital molluscum contagiosum were included in the study. Diagnosis of MC was from detailed history and clinical examination. VDRL, ELISA for HIV, HbsAg were done for all the patients after due counselling and consent and these were noted in the records . History of unsafe sexual practices was elicited and noted for all the patients. Following data were collected at the first visit. (1) Demographic information –age and marital status, (2) Sexual orientation, and (3) clinical information. All the patients were examined for the presence of other sexually transmitted diseases as well.

Results

16 patients were diagnosed with genital molluscum contagiosum based on clinical examination of characteristic lesions. There were 7 male and 9 female patients of genital MC. Youngest patient of genital MC was a 2 year old female while oldest patient was 34 year old female (table 1) . Mean age of patients at the time of diagnosis was 22.6 years. The infection was most common in the 16-25 years age group (60%). One patient was HIV positive. History of sexual abuse was present in one 11 year old child. Mode of infection was through unsafe sexual contact in 15 patients (93.75 %)

Conclusion:

The societal sexual practices have undergone tremendous changes, which is reflected in rise in STIs, which are predominantly viral . This is more so, in adolescents and urban migrant population who do not receive formal education and do unskilled jobs. This study emphasises the need to strengthen community health programs aiming at adolescent sexual health through primary health care level.

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I. Introduction

The prevalence of STI is increasing steadily. The rise could be attributed to early sexual maturity and activity due to changing societal perspective and influence of social media. Thus, a retrospective study was undertaken to evaluate the prevalence of genital molluscum contagiosum , to raise awareness regarding this disease ,and to educate the target population that this infection is sexually transmitted.. Lack of awareness leads to not seeking timely medical assistance and promotes spread of MC. The study aims at reducing the disease burden of MC as well as other STDs . The acquisition of MC can be venereal or non venereal The possibility of

non sexual route (intrauterine/perinatal) is more common in children less than 2 years , whereas sexual route should be considered as the primary mode of transmission for children between 2 and 10 years .In adolescence , voluntary sexual activity and sexual abuse remain the main modes of transmission.

II. Material & Methods

OPD records of patients attending OPD of Santosh Hospital from September 2021 to April 2022, were studied. All the patients diagnosed as genital molluscum contagiosum were included in the study. Diagnosis was made on clinical grounds. No confirmatory tests were required in any patient. A detailed analysis of demographic, epidemiological, clinical characteristics was done. History and nature of sexual contact, whether safe or unsafe, was noted for all . Patients were encouraged to bring their contacts for examination. Educational status and occupation of all the patients was recorded. All the patients were examined for concurrent presence of other STIs. VDRL, ELISA for HIV, HbsAg was done for all patients of genital molluscum contagiosum. All patients were treated by radiofrequency ablation.

III. Observation And Results

There were 16 diagnosed cases of genital molluscum contagiosum. There were 7 males and 9 females (7:9). Table 1 shows the age-wise distribution of patients of genital MC.

Table: 1 Age group –wise distribution and mean age of the patients

AGE	MALE	FEMALE	TOTAL	PERCENTAGE
Upto 15 years	01	01	02	13.3 %
16-25 years	05	05	10	60 %
26-35 years	01	03	04	26.67%
Total	07	09	16	100

In 15 patients no cause for immunosuppression was present. 1 female patient was HIV positive. VDRL was negative in all patients. 9 patients were unmarried, (7 males and 2 females) 7 patients were married(all females). Mean age for the study recorded is 26.6years. No history of atopy was present in any patient. No underlying medical condition or coexistent other STD was present in any patient. No patients had concurrent molluscum contagiosum at any extra genital site. Only 2 patients had less than 5 lesions. 14 (86.67 %) patients had 8 -15 lesions. Youngest patient, 2 year old female, had no h/o abuse but the other family members were infected with MC virus. 11 year old male gave history of child abuse by a known elder relative. Most common site in males was root of penis (fig 1) followed by shaft of penis and scrotum. In females, most common site was labia majora followed by inner thighs.

Table 2: History of unsafe sexual practices in patients

	Male	Female	Total
Married	0	04 (H/o contact in husband)	04
Unmarried	06 (H/O of multiple contacts present)	1	07
Total	06	05	11

4 married female patients' male partners gave h/o extramarital contact. 7 unmarried patients under the age of 25 years (6 males and 1 female) gave history of multiple sexual partners. . Total 11 patients gave history of unsafe sexual practices (multiple sexual partners).

Multiple contacts and unsafe sexual practices was the commonest reason for infection (68.75%). All the patients (100%) were heterosexual in our case series.

Table 3 : Occupation of patients diagnosed with genital Molluscum Contagiosum

Occupation	Male	Female	Percentage
Home maker	0	6	37.5 %
Unskilled worker	4	0	25%
Salon worker	0	2	12.5%
Student	2	0	12.5 %
Clerk	1	0	6.25 %
Pre school	0	1	6.25 %
Total	7	9	100%

6 patients were home makers , 4 patients were unskilled workers , 2 patients were students , 1 patient was in clerical job and 2 patients were salon workers (table 3). Educational status of the patients Only 1 patient was a graduate (6.25 %). Rest 10 patients were school dropouts (66.67 %), 2 were students (12.5%) and 3 patients had completed higher secondary education (37.5%). 1 patient was pre- school age group (table 4).

Table 4: Educational status of patients

	Male	Female	Total
Graduate	1	0	1
School dropouts	4	6	10
Higher secondary	1	2	3
Student	1	0	1
Total	7	8	15



Fig 1 : Genital Molluscum Contagiosum in 20 y male

IV. Discussion

Molluscum contagiosum (MC) is a self-limiting infectious dermatosis, frequent in pediatric population, sexually active adults, and immunocompromised individuals. It is caused by molluscum contagiosum virus (MCV) which is a virus of the Poxviridae family, a double-strand DNA virus [1][7]; MCV infection occurs worldwide with a prevalence of 5-11% [8] and its incidence has increased significantly in the last few decades [9]. Molluscum accounts for 1 % of all diagnosed skin disorders [12] Humans are MCV only host. [1] MCV has 4 different genotypes: MCV 1, MCV 2, MCV 3, and MCV 4. MCV 1 is the most common genotype (75–96%), followed by MCV 2, while MCV 3 and 4 are extremely infrequent. [1][2]. MCV is transmitted mainly by direct contact with infected skin, which can be sexual, non-sexual, or autoinoculation. Swimming or co bathing , sharing of towels/ sponges has also been proposed as a mode of transmission of genital molluscum contagiosum.[13] Transmission to new born during birth is also possible .The incubation period of this virus ranges from 1 week to 6 months ,with a mean time of 2-3 months . [10]. Some studies cite a variable incubation period of 2-6 weeks.[3] Clinically, MC presents as firm rounded papules, pink or skin-colored, with a shiny and umbilicated surface. Lesions, in most cases, are self-limited in a period of 6–9 months. MCV infects the epidermis and replicates in the cytoplasm of cells. MC is more frequent in immunosuppressed patients, and could present complications such as eczema and bacterial superinfection. The diagnosis is based on clinical findings. Rarely, dermoscopy or skin biopsy may be required. There are several treatment modalities which include mechanical, chemical, immunomodulatory, and antivirals. It is estimated that in HIV patients the prevalence of genital MC is close to 20%.[4] Besides HIV, MC may be associated with iatrogenic immunosuppression (transplant patients , malignancy) ,or primary immunodeficiencies (eg, DOCK8 immunodeficiency syndrome). [5] Atopic dermatitis (AD) has also been proposed as a risk factor for MC in some studies. [6]

V. Conclusion

In our case series, Genital MC was almost equally common in males and females .(7:9) There was no underlying immunosuppression in 15 patients , 1 female patient was HIV positive . Commonest cause of infection was unsafe sexual practices and multiple partners. Infection in 2 yr old child was probably due to exposure to infected family members (mother and brother) . Infection in 11 year old male was due to child abuse . The mode of transmission of genital Molluscum contagiosum was through sexual contact in 15 /16 patients, only 1 female patient (2 years old) the mode of transmission was handling of the baby by infected adults . 10 /16 patients were school dropouts (62.5%) . Only 1 patient was a graduate (6.25%), 3 patients (18.75 %) had completed higher secondary education emphasising a link between less education and practicing unsafe sexual practices. Most of the patients were home makers followed by unskilled workers and then salon workers, according to this study patients in unskilled jobs were more prone to MC infection. According to study by Singla et al, labourers , students and salon workers were high risk occupations . The study emphasises the need to target high risk population and educate them regarding safe sexual practices.

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