



A CLINICO-EPIDEMIOLOGICAL STUDY OF MOLLUSCUM CONTAGIOSUM IN A SAMPLE OF IRAQI PATIENTS ATTENDING TO DERMATOLOGY OUT PATIENTS IN AL-SHAHEED AL-SADER HOSPITAL IN BAGHDAD CITY

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ABSTRACT

Molluscum Contagiosum (MC) is a common viral infection of the skin, caused by poxvirus, causes characteristic skin lesions which are discrete, smooth, papule and dome shaped. They are generally skin colored with an opalescent character. Commonly affects young children, sexually active adults & immunodeficient patients. The present work aimed to evaluate the rate of MC. in patients attending to dermatology out patients' clinic and also to describe the demographical factors related to MC and clinical variations of the disease. A cross sectional study is conducted in department of dermatology in Al- Shaheed Al- Sader Hospital in Baghdad through the period between November 2011 –April 2012. A total number of 360 three hundred sixty patients who were diagnosed to have MC. were included in this study. All patients were diagnosed on clinical basis. Among those patients, (170, 47.2%) males and (190, 52.8%) females with female to male ratio 3:2. Their ages ranged from 1.5-70 years, (mean age 17.24 years & SD 15.0150). The most common age group affected was from 1-10 years which comprises (166, 46.11%). The rate of MC in patients attending to dermatology out patient's clinic was 10.99%. Most of the patients (278, 77.22%) did not have history of previous MC (323, 89.73%) had no history of other skin disease, (220, 61.11%) patients had Duration of the disease ranged from 1-10 days. the number of the lesions ranged from 2-25. Most common affected primary body sites were the head & face (210, 58.34%) and the trunk (48, 13.33%), while common secondary sites were trunk (42, 37.17%) and neck (28, 24.78%). Most of the patients came for the first time 1-10 days after appearance of the lesions, mostly treated by electro-cautery.

KEY WORDS: Clinico-Epidemiological; Molluscum Contagiosum; Al-Shaheed Al-Sader Hospital; Baghdad City.

INTRODUCTION

Molluscum Contagiosum (MC) is a disease caused by a poxvirus of the Molluscipox virus genus that produces a benign self-limited lesion^[1] consist of single or, more often, multiple, rounded, dome-shaped, pink, waxy umbilicated papules that are 2-5mm^[2]. Atypical presentations of MC were also reported^[3]. It is generally thought to infect humans exclusively, but there are a few isolated reports of MC occurring in chickens, sparrows, pigeons, chimpanzees, kangaroos, a dog, and a horse. The infection is found worldwide and has a higher incidence in children, sexually active adults, and those who are immune-deficient^[1]. This common viral disease is confined to the skin and mucous membranes^[1]. There are four types of MCV, MCV-1 to -4; MCV-1 is the most prevalent and MCV-2 is seen usually in adults and often sexually transmitted MC can affect any area of the skin but is most common on the trunk, arms, and legs. The virus commonly spreads through skin-to-skin contact. This includes sexual contact or touching or scratching the bumps and then touching the skin. Handling objects that have the virus on them (fomites), such as a towel, can also result in infection. The virus can spread from one part of the body to another or to other people. The virus can be spread among children at day care or at school. MC is contagious until the bumps are gone (which, if untreated, may last

upto 6 months or longer). The time from infection to the appearance of lesions can range up to 6 months, with an average incubation period between 2 and 7 weeks^[4]. The present study aimed to study the rate of the MC infection and to describe the demographical factors related to MC and the clinical variation of the disease.

PATIENTS & METHODS

Study design: A cross sectional study was conducted in Department of Dermatology in Al- Shaheed Al- Sader hospital in Baghdad through the period between November 2011 – April 2012.

Sample size: A total number of 360 three hundred sixty patients who were diagnosed with M.C were involved in this study

Data collection: During the period of study, the sample was collected on one day/ week through direct interview with the patient or patient's relative (in children).

All patients were diagnosed on clinical basis by specialists in dermatology.

Patients or their parents were fully questioned regarding the age, sex, address, occupation (un employed, employed), education (preprimary, primary, secondary, high school), marital status(single, married, divorced, widow), associated diseases (like atopic dermatitis, diabetes mellitus), topical steroid usage, history of MC in

other family members, history of MC in patient and history of contact with MC patient, and the time of contact, house crowding, the most common measure of overcrowding is persons per-room in a dwelling unit, defined overcrowding as more than one person-per-room & 2 persons in bed room^[5]. Physical examination was carried out regarding skin type which was classified to type: 1, 2, 3, 4, 5, & 6^[6]. Regarding lesions site, the first site of appearance of the lesion was considered as primary site, secondary site of appearance of the lesion in other part of the body considered as secondary site, lesion size was classified to (small, giant, mixed), the shape was classified in to:

1-Classical which define as single or, more often, multiple, rounded dome-shaped, pink, waxy umbilicated papules that are 2-5 mm.

2- Unclassical, Information about number of lesions, complications (infection, irritation, mixed), type of treatment, type of visit was also obtained.

Statistical analysis: Statistical analysis of data was carried out using the available statistical package of Social Science (SPSS). Data were presented in simple measures of frequency and percentage arranged in tables and figure.

RESULT & DISCUSSION

A total of 360 patients were enrolled in this study, (170, 47.2%) of them were males and (190, 52.8%) females with female to male ratio approximately 3:2. Their ages ranged from 1.5-70 years [mean age 17.24 years & SD 15.015]; the rate of MC in patients attending to dermatology out patients' clinics was 10.99%.The most common age group affected was from 1-10 years which comprises (166, 46.11%) patients and young adults aged 21-30 years which comprises (73, 20.28%) Table (1).

TABLE 1: Distribution studied group according to age

Age/years	Number	%
1-10	166	46.11
11-20	40	11.11
21-30	73	20.28
31-40	65	18.05
41-50	10	2.77
>50	6	1.68
Total	360	100%

Most of the patients' lives in Al- Sader city (271, 75.28%), about (236, 65.56%) patients live in crowded houses Table (2). Among the patients high percent (280, 77.78%) were un employed from them 166 were children <10 years old, 34 students, 80 house wives, while 80 patients were

employed; from those who were employed, MC was found in indoor workers (50 , 62.5%) more than in outdoor (30, 37.5%) Table (2). Most of the patients whose age above 10 years were married (113, 58.25%), and (120, 33.33%) of patients had low level of education Table (2).

Table (2) Distribution of study group according to socio- demographical characteristics

Variable	Number	%
Gender		
-male	170	47.22
-female	190	52.78
Total	360	100%
Address		
-al sader	271	75.28
-al shaab& hi our	39	10.83
-al baladeat	26	7.22
-others	24	6.67
Total	360	100%
Occupation		
-employed	80	22.22
-un employed	280	77.78
Total	360	100%
employed		
-indoor	50	62.5
-out door	30	37.5
Total	80	100%

The majority of the patients (82, 22.78%) had previous history of MC, (220, 61.11%) had history of contact with M.C infected persons, from those (130, 59.1%) patients get infection at the same time with contact with infected persons.

From the patients (37, 10.27%) with M.C had associated diseases; from them (24, 6.67%) patients had atopic dermatitis who show wide spread lesions, (3, 0.83%) were

asthmatic, *Diabetes mellitus* (3, 0.83%) patient. (3, 0.83%) patients misused topical steroid (4, 1.11%) patients used systemic steroid. Most of the patients (202, 56.11%) patients had no family history of M.C. (Table 3). Regarding skin photo type the highest percent of patients were type III and type II which comprises (208, 57.78%) patients & (110, 30.56%) patients respectively. Table (4)

TABLE 3: Distribution of studied group according to history characteristics

Variable	Number	%
Patient history of M.C.		
-yes	82	22.78
-no	278	77.22
Total	360	100%
Patient history of other skin disease		
-yes	37	10.27
-no	323	89.73
Total	360	100%
Patient history of other skin disease including:		
-atopic dermatitis	24	6.67
-asthma	3	0.83
-D.M	3	0.83
-patient use systemic steroid	3	0.83
-patient use topical steroid	4	1.11
Total	37	100%
Patient history of contact with M.C. patient		
-yes	220	61.11
-no	140	38.89
Total	360	100%
Time of contact :		
-at the same time	130	59.1
- Previously	90	40.90
Total	220	100%
Family history of M.C.		
-yes	158	43.88
-no	202	56.11
Total	360	100%

TABLE 4: Distribution of studied group according to skin photo type

Variable	Number	%
Skin type I	10	2.78
Skin type II	110	30.56
Skin type III	208	57.78
Skin type IV	29	8.05
Skin type V	3	0.83
Skin type VI	0	0
Total	360	100%

Duration of disease range from 1-10 days, most common involved primary sites were the head & face (210, 58.34%) patients, neck (35, 9.72%) patients, trunk area (48, 13.33%) patients, upper extremities (35, 9.72%) patients, lower extremities (9, 2.5%) patients & genital area (23, 6.40%) patients (table 5). Number of lesions ranges from 2-25, the highest frequency of them was observed in the genitalia (up to 25) and head & neck (up to 15). Size of lesions ranged from few millimeters to one centimeter. Most of the lesion were small size (76.39%), classical shape (92.22%) & without complication (89.72%), but the most common complication was infection (6.67%) Table (5). Among patients (113, 31.4%) had secondary sites of MC while (247, 68.61) didn't. The most common secondary sites were the trunk (42, 37.17%) patients, neck in (28, 24.78%) patients, upper extremities

(19, 16.80%) patients, lower extremities (14, 12.40%) patients, genitalia and head were less involved. Also number of lesions ranges from 2-25, the highest frequency was observed in the genitalia (up to 25) and the trunk (up to 15). Most of the lesions in secondary sites were small in size (78.76%), classical in shape (92.03%), without complication (66.37%), most common complication was infection in (14.16%) of patients. Table (6). The majority of the patients (276, 76.66%) came to dermatological out patients clinic for the first visit, while (84, 23.33%) came for follow up. The majority of patients (339, 94.16%) treated by electro-cautery, (6, 1.66%) patients treated by curettage, (4, 1.11%) patients treated by phenol prick, (6, 1.66%) patients treated by trichloroacetic acid (TCA) & (5, 1.38%) patients received medical treatment.

TABLE 5: Characteristic of primary lesion of MC

Variable	Number	%
Site of primary lesion		
-head	210	58.34
-neck	35	9.72
-trunk	48	13.33
-genitalia	23	6.39
-upper extremities	35	9.72
-lower extremities	9	2.5
Size of the lesion		
-small	275	76.39
-giant	17	4.72
-mixed	68	18.89
Shape of the lesion		
-classical	332	92.22
-unclassical	28	7.7
Complication		
-infection	24	6.67
-irritation	6	1.67
-mixed	7	1.94
-no complication	323	89.72
Total	360	100%

TABLE 6: Characteristic of secondary lesion of MC

Variable	Number	%
size of the lesion		
-small	89	78.76
-giant	8	7.08
-mixed	16	14.16
Shape of the lesion		
-classical	104	92.03
-un classical	9	7.97
Complication		
-no complication	75	66.37
-infection	16	14.16
-irritation	9	7.97
-mixed	13	11.50
Total	113	100%

CONCLUSIONS

- I. The rate of MC. In patients attending to dermatology out patients in Al Shaheed Al Sader hospital in a period between November 2011 –April 2012 was 10.99, female patient were affected more than the male, The disease was more common in children whose aged 1-10 years.
- II. High percent of the patients lived in crowded houses, of lower educational level, unemployed, and of those with history of other skin disease, atopic dermatitis was the most common.
- III. Most of the patients had classical, small size lesion, most of them came to dermatology outpatient clinic for the first time within 1-10 days after appearance of the lesion. The head was the most commonly involved primary site while the trunk was the most common site for secondary lesions.

RECOMMENDATIONS

- I. Health education is essential for prevention infectious diseases including MC to increase patients and families, medical & paramedical staff awareness regarding disease transmission, relapses, complications, and prevention.
- II. The rate of MC seems to be increasing in Iraqi patients attending to dermatology out patients’ clinics, so we recommended other study to identify the virus serotype and assess other factors related to M.C infection.

- III. MC should be treated properly to limit the spread of the disease.

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