Molluscum Contagiosum in AL Najaf City Patients and Its Relationship to handshaking and kissing: An Epidemiological Study.

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ABSTRACT:
Background: Molluscum Contagiosum is a common viral infection of the skin, caused by a poxvirus, commonly affects young children. The disease is common, although the incidence in most areas is not reliably known. An infection transmitted through contact with infected persons or contaminated objects.

Aim of the study: To study the relationship between the transmission mechanisms of molluscum contagiosum with handshaking and kissing.

Methodology: This study was conducted in the Department of Dermatology and Venereology – Al-Sadir Medical City in Al-Najaf from March \ 2016 to January \ 2017. Ninety-five patients were included in this study. Full history and physical examination were done for all patients. The age of patients, sex, number of lesions, site of distribution, duration of lesions and family history were assessed.

Results: Ninety-five patients with molluscum contagiosum 72(54.3%) males and 23(45.6%) females with a male to female ratio 1.91-1. Their ages ranged from 1.5-62 years (mean and standard deviation 19.4±16.7). The disease duration varies between 1 – 24 weeks with a mean ± SD of 5.17± 4.407 weeks. The most common affected body sites are the face and most of the lesions appear on the right side of the face.

Conclusion: It is clear from the results in this study that the right side of the face is the most infected side. This indicates that there is direct contact with lesion mostly related to handshaking and kissing.

Recommendations; we recommend to study involves larger number of the patients as and to check the relationship to other actions like swimming.

INTRODUCTION

Molluscum contagiosum (MC) is a benign viral infection that generally affects young children. It is characterized by smooth, dome-shaped discrete papules with a central umbilication that occasionally covers the surrounding area of scale and erythema (molluscum dermatitis). Molluscum contagiosum caused by the molluscum virus which belongs to the family poxviridae subgenus molluscipox virus, which included 4 genetically subdivided but clinically indistinguishable molluscum contagiosum viral types (1).

MCV occurs throughout the world. The disease is common, although the incidence in most areas is not well known. Infection occurred through contact with infected persons or contaminated objects, but the importance of skin injury is unknown (2).
It is commonly thought to affect humans exclusively, but there are a few isolated cases of MC occurring in chickens, sparrows, pigeons, chimpanzees, a dog and a horse (3).

The disease is rare below the age of one year, perhaps due to maternally transmitted immunity and a long incubation period (2). Approximately 80% of the patients are less than 8 years old, with equal sex distribution (4).

In hot countries, the viral transmission was increased where children are lightly dressed and in close contact with one another where personal hygiene may be poor, spread within the household is not uncommon (2). The prevalence of MCV infection has increased significantly in the past several decades, with a 10-fold increase noted in one US study of patient visits for this disorder over a three-decade span. This rise in prevalence appears to parallel the overall increase in sexually transmitted diseases (1). Although a prevalence rate of infection less than 5% in US children often cited, the rate varies by region, and it appears the sub-clinical infection may be more common than the overt disease (4).

In Iraq, in a study done in 1988, it has been found the incidence of MC among Iraqi children attending dermatology and venereology unit to be 0.2% (5), but nowadays, there is a dramatic increase in the incidence of the infection between Iraqi children.

The prevalence within the HIV infected population is estimated to be 5-18% and the incidence and severity of MC in HIV and acquired immune deficiency syndrome (AIDS) patients is inversely proportionate to the CD4 count (6).

Clinical features:

The incubation period of MC is varying from 14 days to 6 months (2). MC often presents with extremely small dome shape pink, pearly or flesh-colored papules, averaging 3-5 mm in diameter, occasionally reaching sizes of up to 3 cm ("giant molluscum"). The lesion may have a central umbilication within which a white curd-like substance can be seen that can be expressed with a squeeze (7).

Generally, MC can be infected any part of the body surface including the face, extremities, trunk, scalp, eyelid, lip, tongue, buccal mucosa, and the soles where the appearance is atypical (6).

The duration of both the individual lesion and the attack is very variable and although most cases are self-limiting within 6-9 months, some cases persist for 3 or 4 years. There are three groups are primarily affected: young children, sexually active adults, and immunosuppressed persons, especially those with HIV infection (2).

In young children, the lesions are usually generalized and numbers vary from a few to more than one hundred lesions tend to be on the face, extremities, and trunk. Genital lesions of MC appearing as part of a wide distribution occur in 10% of childhood cases. When MC is restricted to the genital area in a child, the possibility of sexual abuse must be considered (8).

In adults, MC can be sexually transmitted and other STDs may coexist. There are usually fewer than 20 lesions; these appear in the lower abdomen including the upper thigh, pubic area, and the penile shaft in men. Mucosal involvement is very uncommon. Immunosuppression person, either systemic T-cell immune-suppression (usually HIV, but also sarcoidosis and malignancies) or abnormal cutaneous immunity (as in atopic dermatitis or topical steroid use), predispose the individual to infection. In atopic dermatitis, lesions tend to be confined to dermatitis skin (2).

Recent studies have suggested that molluscum contagiosum may serve as a cutaneous marker of severe immunodeficiency and sometimes is the first indication of HIV infection (9).

Diagnosis:

It is easily diagnosed in most cases because of distinctive central umbilication of the dome-shaped papule. This may be enhanced by light cryotherapy that leaves the umbilication appearing clear against a white (frozen) background. For confirmation, express the pasty core of a lesion, squash it between two microscopic slides (or a slide and a cover glass) and stain it
with Wright, Giemsa, or Gram stain. Firm compression between the slides is required \(^2\). Histopathological evaluation can be performed as needed \(^1\).

Diagnosis can be done rapidly by electron microscopy \(^6\). A quick and reliable in-clinic method to confirm the diagnosis of MC using 10% KOH solution which is added to crushed material of the core of MC, keratin will sufficiently clear within minutes, and the clustered, round or oval-shaped Henderson Paterson bodies are easily seen within the specimen \(^10\).

**AIM OF THE STUDY**

To study the relationship between the transmission mechanisms of molluscum contagiosum with handshaking and kissing

**METHODOLOGY**

This epidemiology study was conducted in the Department of Dermatology and Venereology – Al-Sadir Medical City in Al-Najaf from October \(^\text{2016}\) to January \(^\text{2017}\). Ninety-five patients were included in this study. All patients were diagnosed on a clinical basis. Full history and physical examination were done for all patients.

The age of patients, sex, number of lesions, site of distribution, duration of lesions and family history were assessed.

**RESULTS:**

<table>
<thead>
<tr>
<th>Side of the face</th>
<th>frequency of the patients</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right</td>
<td>82</td>
<td>86.3</td>
</tr>
<tr>
<td>Left</td>
<td>13</td>
<td>13.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>95</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
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Table (1) showed Ninety-five patients with molluscum contagiosum 72 (54.3%) males and 23 (45.6%) females with a male to female ratio 1.19:1; their ages ranged from 1.5-62 years (mean and standard deviation 19.4±16.7). The disease duration varies between 1 – 24 weeks with a mean ± SD of 5.17± 4.407 weeks. The most commonly affected body sites were the face and most of the lesion appear on the right sides of the face.

**DISCUSSION**

Molluscum contagiosum is a common viral disease of the skin that mostly affects young children and could be seen in adults as part of sexually transmitted diseases. In Iraq, there was a recent increase in the number of cases mainly among children. The present work showed that male to female ratio was 1.19-1 and this is similarly reported by Indian study \(^11\).

Regarding the age of patients which ranged from 1.5-62 years (mean and S.D. = 19.4+16.7). The most common age group affected was from 2-12 years, which comprised 50.8% (29 patients). Another American study also showed similar results \(^12\).

The present study demonstrated that the number of lesions ranged from 1-26 with mean +SD 9.05 +5.6 and this was similarly seen in Italian study \(^13\).

All cases were extra genital apart from six patients (10.5%) who had genital and perianal lesions, 3 (5.2%) patients had lesions confined only to the genital area, two of them are adults and the other was a child with the possibility of sexual abuse. The other three (5.2%) patients had lesions in other body parts such as the face and trunk and this was associated with the involvement of the genital area as a part of generalized involvement rather
than asexually transmitted disease. Forty-nine (85.9%) patients had lesions on the face and neck, 41 (71%) patients involve the right side, which makes them the most common site involved in the body. Of these patients, 22 (38.5%) were children and 27 (47.3%) were adults. These adult patients had the lesions on the beard area; they acquired the infection after kissing, shaking and shaving.

In a British study, the trunk was the most commonly involved site (74%) and the involvement (37) of the genital area is more common than what was found in the present work and this might be due to differences in social habits and promiscuous relations (14).

Associated diseases noted were mainly atopic dermatitis in 13 (22.8%) patients. Of these, 7 (12.2%) patients had atopic dermatitis and the remaining patients had asthma and hay fever, while in other studies atopic dermatitis was seen in 17-25% of patients with molluscum contagiosum (14, 15).

The present work showed that the duration of the disease ranged from 1-7 months and this finding is approximated to other studies in which the duration ranged from 1-12 months (12, 16).

CONCLUSION
It is clear from the results in this study that the right side of the face is the most infected side. This indicates that there is direct contact with lesion mostly related to handshaking and kissing.

RECOMMENDATION
We recommend to study involves larger number of the patients as and to check the relationship to other actions like swimming.

REFERENCES:


