

Molluscum Contagiosum in an Immunocompetent Patient: A Case Report

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ABSTRACT

Introduction: Molluscum contagiosum (MC) is a common skin and mucosal disease caused by MC virus of pox virus family. Lesion manifests both in immunocompromised and immunocompetent individuals.

Case Presentation: The case is of MC in 40 year old female patient on right cheek since three months. The growth was asymptomatic and nodular. HIV status of the patient was negative with no other medical history. The excised specimen on histological examinations showed lobules of proliferating epithelium. Cells in the center showed basophilic viral inclusion bodies called "Henderson-Paterson bodies" based on these features lesion was diagnosed as MC. Management and prognosis: Lesion was treated surgically. Follow up of six months showed no recurrence or any new lesions.

Conclusion: MC is commonly manifested in immunocompromised patients but can rarely be present in immunocompetent patient, so should be considered in the list of differential diagnosis.

Key words: Henderson Paterson bodies; HIV; Molluscum contagiosum

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INTRODUCTION

Molluscum contagiosum (MC) is a common skin condition affecting people of all age groups, seen prominently in children and immunocompromised individuals, and is one of the 50 most prevalent diseases globally¹. Molluscum contagiosum (MC) is caused by MC virus, a DNA virus belonging to poxvirus family which replicates only in human epidermal keratinocytes². MC is a common, self-limiting viral infection of the skin and mucous membrane.³ Acquisition of the virus follows contact with infected persons or contaminated objects and sources such as towels, sponges, swimming pools, public baths, tattoo instruments, gymnasium equipment, instruments used in beauty salons. Most commonly affects young children, sexually active adults and immunosuppressed persons especially those affected with HIV. The virus invades the skin and forms firm, flesh-coloured, doughnut-shaped bumps, about 2–5 mm in diameter with sunken centers containing a white, curdy-type material.⁴ The lesions are known to present clinically as small, umbilicated, skin-colored, pearly papules with a predilection of the trunk, axillae, antecubital, popliteal fossae and genital area. First incidence of infection is mostly noted in preschool children. The average incubation period may vary from 2 to 7 weeks. The diagnosis of MC is typically made by its clinical presentation and further confirmed by histopathology which demonstrate cytoplasmic eosinophilic inclusions or molluscum bodies that are characteristic of poxvirus replication.⁵

CASE REPORT

A 40-year-old woman reported to the department of oral medicine and diagnosis complaining of slowly enlarging swell-

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ing in lower right cheek region since 3 months. Patient was apparently asymptomatic 3 months back; after which she noticed a growth on right cheek with white discharge, swelling was initially pea sized and gradually increased to attain the present size. (Fig.1) Inspection revealed that the nodule was measuring 2x3cm sessile, pearly flesh colored, oval in shape, present on the lower right cheek 3cm from corner of the mouth. The surface of the lesion appeared smooth, round, blanched with a dimple in the center. On palpation the nodule was non fluctuant with soft to firm consistency, slightly tender showing white discharge. Past dental and medical histories were non-contributory. Family history revealed that she was married since 15 years and no such lesions were present in her spouse. General physical examination revealed absence of any such lesion present elsewhere on the body. Routine blood investigations revealed no abnormality

in any of the parameters. HIV 1 and HIV 2 testing were also done, which was found to be negative. Fluorescent antinuclear antibody test was done to check for autoimmune infection, and was found to be negative. On the basis of clinical examination, provisional diagnosis of MC was made, along with the differential diagnosis of Herpes simplex infection. The lesion was surgically excised under local anesthesia, and the biopsied tissues were fixed in 10% formalin and sent for histopathological processing.

On gross examination the sectioning of specimen showed brownish white cut surface. Microscopic examination of the processed tissue, by routine hematoxyline and eosin (H and E) staining revealed exophytic, hyperplastic stratified squamous epithelium, invading connective tissue in form of lobules (Fig 2). At some areas epithelium with broad bulbous rete ridges were present whereas at other areas eosinophilic material with absence of rete ridges was noted. The basal layer showed enlarged basophilic nuclei and mitotic figures. Progressing toward the center of the nodule, the spinous cells showed cytoplasmic vacuolization with large intracytoplasmic, basophilic viral inclusions suggestive of Molluscum bodies or Henderson Paterson bodies. (Fig. 3). Based on the clinical and histopathological findings the lesion was diagnosed as molluscum contagiosum. The lesion was excised and healed with no recurrence.

DISCUSSION

MC is a superficial viral infection. It was first described by Pate-man in the year 1957. It is caused by MC virus type 1 in children and MC virus type II in immune compromised individuals. It is caused by MC virus which is a DNA virus, usually seen in immune compromised states like HIV. The clinical presentation of lesions in children is frequently seen on skin, neck, arms, armpits and hands and mucous membrane of oral cavity. But in case of sexually active adults with AIDS, lesions are seen on genital, abdominal and inner parts of thighs. The lesions are usually self-limiting in immune competent patients, whereas extensive and cause disfigurement when associated with HIV.³

MC is mostly transmitted by direct skin to skin contact and infects epidermal keratinocytes where the virus replication occurs in the cytoplasm. Lesions are most commonly noted as semitransparent papules with central concavity or punctuation at the center with dense elastic consistency at site of inoculation of virus. The le-

sions may or may not be associated with itching.⁴

These lesions can be confirmed by biopsy. Histopathological examination shows inverted proliferation of epithelium in lobulated pattern which is cup shaped. The cytoplasm of spinous cells show large eosinophilic and later basophilic viral inclusion bodies called molluscum bodies or Henderson Paterson bodies. Each developed nodule empties pox virus particle into the central crater which can be visualized by electron microscopy. Similar histopathological features were seen in the present case and were also reported by Jang et al⁶ and Nandini et al³. Usually small MC lesions are self-limiting and heals by themselves.

MC can be treated by various treatment modalities. Smaller lesions are self-limiting and heal by themselves.³ Persistent lesions need intervention. Various treatment modalities include topical applications, cryosurgery, lasers and curettage. Most commonly used topical applications which are effective are imiquimod, cantharidin, potassium hydroxide, 5% podophyllotoxin.^{7,8,9}

Curettage is found to be most effective treatment with fewer side effects under anesthesia.¹⁰ Mutairi N conducted a comparative study with cryosurgery and imiquimod and concluded that imiquimod is painless and recommended in children, whereas cryotherapy is rapidly effective and less expensive than imiquimod in treating large solitary or few lesions.¹¹

Jang H S et al treated the erupted papules of MC with topical imiquimod cream and oral immunomodulating agents like cemitidine which showed resolution of lesions.⁶

Kalasannavar SB et al have adapted a novel ayurvedic approach in treating MC using Apamarga Ksara as local application and Bilvadi Agada prescribed orally for ten days showed healing lesions without scarring.⁵ Pulse dye laser also has shown successful rate of more than 95% in treating individual lesions.¹²

CONCLUSION

Molluscum contagiosum is a viral disease generally seen in immunocompromised states like HIV but can also manifest in immunocompetent individuals as found in the present case. Being MC rare in immunocompetent patients, it is important to consider MC as one of the differential diagnosis clinically in a non HIV patient. Histologically shows classic Henderson-Paterson bodies. Smaller lesions are self-limiting and larger lesions need topical application, curettage, cryo surgery or laser therapy.



Fig. 1: Nodule on right side of cheek

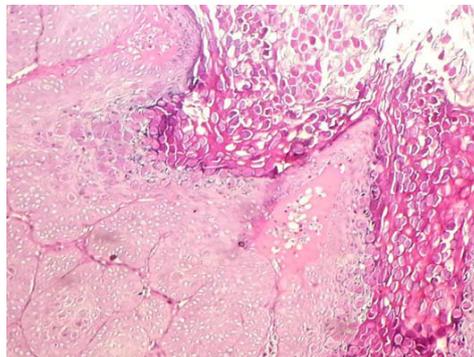


Fig. 2: Epithelium proliferating in lobular pattern with central cells showing basophilic particles. (H and E, 100X)

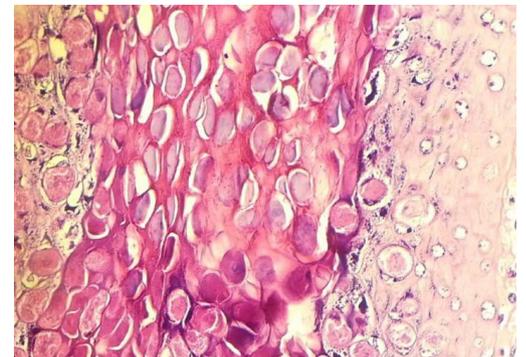


Fig. 3: Cells with basophilic "Henderson-Paterson bodies" (H and E, 400X)

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