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Molluscum Contagiosum

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Abstract

Molluscum Contagiosum (MC) is a very common viral infection of skin caused by a double stranded DNA Pox virus affecting both children's and adults. MC is primarily affects children's of 1-5 years, occasionally it affects adults and immunocompromised individuals. Transmission of virus occurs by direct contact with infected person or contaminated objects. Most common sites are skin of face, trunk and extremities in children, genitals in adults and rarely palms, soles and mucous membranes. Here we are reporting a case of Molluscum Contagiosum in a 3 years old male patient over a skin of face.

Keywords: Henderson-Paterson Bodies; Papules; Nodules.

Introduction

Molluscum contagiosum is a common childhood viral infection of squamous epithelia that generally appears on skin as waxy, dome-shaped papules. Lesions sometimes regress spontaneously in immunocompetent children and some experts advise that "benign neglect" is the most appropriate therapeutic approach in most cases [1].

Accepted treatments are mechanical removal, topical vesicants, electrocautery and liquid nitrogen. [2]

Case Report

Indian male patient, aged 3 referred to the dental clinics for tooth pain from medical college, numerous nodules near corner of mouth were noticed. The patient describes a 4 month history of persistent nodules on his face that have gradually increased in number and size. Initially a single nodule appeared 2cm away from corner of mouth on left side of face [Figure 1]. Later, multiple nodules started arising all over the face within a span of 4 months [Figure 2]. There were no associated signs & symptoms. There was no history of significant weight loss. On examination, there were multiple skin colored, dome shaped and waxy nodules seen all over the face. One measuring 1X1 cm in diameter & others were measuring about 1-5 mm in diameter. Typical central blackish umbilication was seen on the large nodule. On palpation, the nodule is firm, with rough surface texture & non tender. Based on history and clinical examination differential diagnosis of molluscum-contagiosum, keratoacanthoma and basal cell carcinoma were considered. After biopsy, on Microscopic examination of the excised tissue by routine hematoxylin and eosin (H and E) staining revealed hyperplastic epidermis in the form of lobules invaginating into the dermis. The basal layer showed enlarged basophilic nuclei. Progressing towards the center of the lobule, the spinous cells showed cytoplasmic vacuolization and large intracytoplasmic, basophilic viral inclusions called Molluscum bodies or Henderson-Paterson bodies,

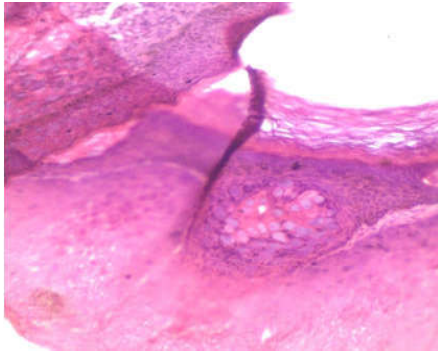
[Photomicrograph 1 and 2] which compress the keratinocyte nucleus. Correlating with case history and clinical findings, histopathological diagnosis of Molluscum contagiosum was given.



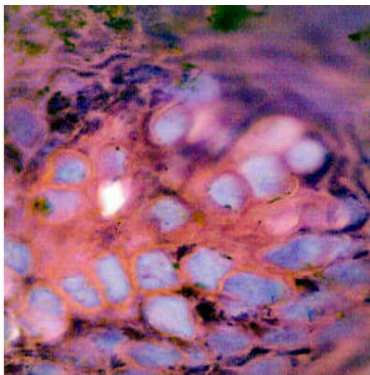
Fig. 1: Showing papules near the corner of the mouth with central umbilicus



Fig. 2: Showing another papules just below the right eyebrow



Photomicrograph 1 [40X]: Showing hyperplastic epidermis and spinous cells showing cytoplasmic vacuolization



Photomicrograph 2 [100X]: showing basophilic viral inclusions called Molluscum bodies or Henderson-Paterson bodies

Discussion

MC was first described in 19th century and later assigned its name by Bateman. Later in 20th century, 1817 and its viral etiology was determined by Juliusberg. It belongs to a Poxviridae family. The virus is round or rectangular consisting of linear double stranded DNA. This virus infects epidermal keratinocytes. It utilizes microtubule cytoskeleton of eukaryotic cells for movement leading to continuous spread of viral infection [3]. Molluscum Contagiosum is a common skin viral infection caused by a double stranded DNA Pox virus affecting both adults and children. MC is primarily an infection of school-going children and occasionally adults and immunocompromised individuals. MC occurs in 2%-10% of worldwide population, its incidence increases in immunocompromised individuals like HIV infected and increasing up to 5%-18% [4]. In the present case, the patient was 3-year-old male.

Subtypes of molluscum contagiosum are MCV I, II, III and IV. All subtypes cause similar clinical lesions in genital and nongenital regions. There is no relationship between virus type and lesional morphology or anatomical distribution is known. Among all MCV I is more prevalent. Clinically MC produces a papular / nodular eruption of multiple umbilicated lesions. The individual lesions are discrete, smooth and dome shaped. They are generally skin colored with an opalescent character. The central depression or umbilication contains a white, waxy curdlike core. The size of the papule is variable, depending upon the stage of development, usually averaging 2-6 mm. The lesions are often grouped in small areas which was similar in our case. MC is transmitted primarily through direct skin contact with an infected individual through bath towels, tattoo instruments. The average incubation time is 14-50 days. MC only infects the epidermis, infection with the virus causes hyperplasia and hypertrophy of the epidermis. Treatment can be in the form of curettage, laser, cryotherapy or salicylic acid [5, 6]. In our case, the patient underwent biopsy, curative treatment and supportive treatment.

Conclusion

Molluscum contagiosum is a benign and self-limiting infection and undergoes spontaneous resolution within months. Virus in later stage is considered as non-self by our body leading to activation of inflammatory pathways and causing spontaneous remission of this viral infection. But

severe and prolonged course are associated with immunosuppression including HIV infection and atopic dermatitis. If treatment is required, it should be supportive.

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