



Treatment of Extensive Eyelid Molluscum Contagiosum with Physical Expression Alone in an Immunocompetent Child

Göz Kapağında Yoğun Molluskum Kontagiosumu Olan Immunokompetan Çocuğun Sadece Fiziksel Boşaltma Yolu ile Tedavisi

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Summary

Molluscum contagiosum is a common viral skin infection in children with dome-shaped umbilicated nodules. Diagnosis is based on clinical appearance. An eight-year-old child presented to our clinic with multiple molluscum contagiosum nodules on the right lower and upper eyelid and one small papule on the left upper eyelid. Only a couple of lesions were squeezed with expression of cheesy material from the center of the lesions. In the follow-up period, beside resolution of the squeezed lesions, all other lesions disappeared spontaneously and no new lesion was observed in the following one year. This method is costless, neither needs a chemical agent nor results in scarring, so can be the first choice of treatment. (*Turk J Ophthalmol* 2014; 44:158-60)

Key Words: Molluscum contagiosum, eyelid molluscum contagiosum, childhood molluscum contagiosum

Özet

Molluskum Kontagiosum çocuklarda sıkça görülen, ortası çökük yuvarlak nodüllerden oluşan, viral bir cilt enfeksiyonudur. Klinik görünümü ile teşhis edilir. Sağ alt ve üst kapağında yoğun olmak üzere sol üst kapakta da bir adet lezyonu olan sekiz yaşındaki olgu kliniğimize başvurdu. Lezyonlardan sadece birkaç tanesi sıkılarak beyaz peynirimsi içeriği boşaltıldı. Takiplerde sıkılan lezyonların yanında tüm lezyonların kaybolduğu gözlemlendi ve bir yıl boyunca yeni lezyon görülmedi. Bu method ücretsiz olması, kimyasal ajan gerektirmemesi ve yara izine neden olmaması nedeniyle ilk tercih olabilir. (*Turk J Ophthalmol* 2014; 44: 158-60)

Anahtar Kelimeler: Molluskum kontagiosum, gözkapığında molluskum kontagiosum, çocukluk çağı molluskum kontagiosumu

Introduction

Molluscum contagiosum (MC) is a cutaneous viral infection with pale, raised, dome-shaped, painless nodules with a central umbilication. Infection is caused by poxvirus which is a DNA virus with four subgroups (Molluscum contagiosum virus-1 (MCV-1) to MCV-4) replicating in the cytoplasm of host cell especially in the epidermal cells.¹⁻³ Lesions are most common in children and patients with AIDS.⁴ Infection is also associated with conditions caused by altered immunity such as corticosteroid and/or other immunosuppressive treatments (TNF α antibody and methotrexate), atopic dermatitis, sarcoidosis, leukemias, Wiskott-Aldrich syndrome.^{5,6} MCV-1 causes infection in small children, whereas MCV-2 causes majority of infections in patients with HIV infection.² Infection is endemic in tropical countries where children are lightly dressed, and spreading is via direct contact, fomites, or via sexual intercourse.² Usually lesions

resolve spontaneously in several months. For faster resolution, many treatment modalities such as cryotherapy, extirpation and cauterization of base, topical chemical and antiviral agents, and oral cimetidine have been used.³⁻⁵

Case Report

An eight-year-old child presented to our clinic with multiple dome-shaped papules on the right lower and upper eyelid and one small papule on the left upper eyelid (Figure 1). She was coming from South of Turkey where hot climate is predominant. Lesions had been present for the last six months and had been increasing in size and number gradually. There was no history of trauma or exposure to anyone with MC lesions. She had been treated with antibiotic drops and ointments but reported no resolution. Ocular examination revealed multiple, firm, pearly, dome-shaped

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mostly giant papules with central umbilication on the right lower eyelid and small umbilicated papules on the right and left upper eyelids. Visual acuity was 20/20. Conjunctival papillary reaction and corneal involvement were not detected on slit lamp examination. Intraocular pressure and fundus examination were found to be normal. Lesions were diagnosed as MC based on clinical appearance. Following diagnosis of MC, investigations for immunosuppression were performed. Serological tests for human immunodeficiency virus, hepatitis A, B and C were negative. Immunological tests such as immunoglobulin levels, CD 4 and CD 8 levels were normal. No abnormality was observed in hemogram and biochemical tests. A couple of lesions were squeezed with forceps laid across the bottom of papules and eviscerated with expression of cheesy material from the center of the lesions. Topical antibiotic ointment therapy to avoid secondary bacterial infection was prescribed after the operation. In the follow-up period, beside resolution of the squeezed lesions, all other lesions disappeared spontaneously in two weeks. The patient was followed for one year, and no new lesion was observed (Figure 2).



Figure 1. Preoperative view of child with extensive molluscum contagiosum involving the eyelids



Figure 2. Postoperative view; two weeks after expression of some papules

Discussion

Molluscum contagiosum is a predominant viral skin infection (37%) seen in dermatology clinics.² The incidence of infection is 2%-8% in childhood with an increased prevalence in the 1-10 year age group.^{2,7} Single site involvement, especially head and neck, is more common in children.² Especially in hot countries with poor personal hygiene where lightly dressed children are in close contact with each other, spread via direct contact is common. Contact via swimming pool in more developed countries also has been reported.^{3,8} Generally MC diagnosis is based on clinical appearance and confusion is rare among clinicians. Histological examination and laboratory investigations were considered unnecessary.

Kakourou⁹ reported 4 out of 110 Greek children (3.8%) had numerous and recurrent molluscum with no other coexisting immunological problem. Herein, we reported an immunocompetent child with extensive MC nodules involving the eyelids diagnosed according to clinical appearance.

Molluscum contagiosum is a self-limited infection, however, for prevention of transmission and scarring, overcoming visible lesions and acceleration of treatment process intervention is necessary. Several treatment modalities including surgical, topical, and oral medications have been reported. Surgical treatments are cryotherapy with liquid nitrogen, extirpation with cauterization of the base, expression and pricking with a sterile needle, photodynamic therapy, and laser.^{7,10} Chemical agents such as silver nitrate, phenol and trichloroacetic acid, in resistant lesions in immunocompromised patients topical antiviral agent cidofovir (5%), intralesional or systemic interferon alpha, imiquimod (5%) cream, salicylic acid, glycolic acid, tretinoin, tazortene, 5% sodium nitrite co-applied daily with 5% salicylic acid topical preparations, podofilox, liquefied phenol, tretinoin, cantharidin, potassium hydroxide, adapelene 1% cream have been reported.^{5,7,10} Oral treatment with cimetidine is another option.^{7,10} A review of Cochrane database including 495 cases indicated that no therapy was universally and convincingly effective in treatment of MC.¹⁰ Most of the therapies must be repeated for a couple of times and some of which may be painful for children.

Hanna et al.¹¹ compared four treatment options for MC in 124 children and found that curettage was the most effective treatment with lowest rate of side effects. They also reported that 80.6% of patients needed only one visit with this therapy. Topical cantharidin caused blisters and necessitated more visits, and topical keratolytic was irritating. Topical imiquimod therapy was an expensive treatment modality. Weller et al.¹² compared physical expression by squeezing and chemical ablation with phenol, and reported no significant difference in terms of resolution but phenol treatment resulted in more significant scarring. Our goal of treatment was to develop a localized immune response via destruction of couple of lesions. We simply eviscerated the core of a couple of lesions only by squeezing without cauterization of the base of the lesion as Weller et al.¹² did. It has been reported that physical or chemical irritation via

allowing sensitized T cells and other inflammatory cells to access the previously 'walled off' virus infected cells might induce a systemic inflammatory response.¹ After an inflammatory phase with erythema and crusting, often the resulting small superficial scar resolves.³ So, anything which disrupts an individual lesion will lead to its resolution.³

Although most cases are self-limited and resolve spontaneously, we preferred to treat our patient to overcome cosmetic and psychological problems, to alleviate discomfort, as well as to prevent the spread of infection, secondary infection, and trauma. Physical expression by squeezing only a couple of lesions resulted in complete resolution of the remaining MC lesions in the present case. Because this method is costless, neither needs a chemical agent nor results in scarring, it can be the first choice of treatment.

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