

Ocular manifestations of molluscum contagiosum, retrospective case series and literature review

Ocular manifestations of molluscum contagiosum

Hülya Gökmen Soysal¹, Hatice Ergün², Mehmet Barış Üçer³, Ahmet Fazıl Nohutcu⁴

¹Ophthalmology Kafkas University Medical Faculty, Kars,

²Sıtkı Koçman University, Education And Research Hospital, Muğla,

³Ophthalmology Kafkas University Medical Faculty, Kars,

⁴Ophthalmology Kafkas University Medical Faculty, Kars, Turkey

This study has been presented in 50. Turkish Ophthalmology Society National Congress in Antalya, on November 2016.

Abstract

Aim: The clinical features and treatment modalities of ophthalmic Molluscum Contagiosum (MC) are presented in this retrospective study. **Material and Method:** Patient characteristics, history and ocular findings were recorded. Treatment was performed by extraction and curettage of the lesion by squeezing with a clamp or extirpation and cauterization of the base. **Results:** Twenty patients had MC lesions of the eyelids. Hyperemia, lacrimation and discomfort were the main complaints in 12 patients. Fourteen patients had eyelid margin lesions; follicular conjunctivitis was detected in 12 of them. Most of these patients had a history of unsuccessful treatment. In 50% of patients, there were also extraocular MC lesions. Complete treatment was achieved in 19, and relapse occurred in one case. **Discussion:** The diagnosis of ophthalmic MC is easy and the treatment is cheap. It should be considered in the etiology of long lasting follicular conjunctivitis or not responding to treatment and the lid margins should be examined carefully.

Keywords

Molluscum Contagiosum, Follicular Conjunctivitis

DOI: 10.4328/JCAM.5922 Received: 05.06.2018 Accepted: 20.06.2018 Published Online: 03.07.2018 Printed: 01.05.2019 J Clin Anal Med 2019;10(3): 365-7
Corresponding Author: Hülya Gökmen Soysal, Department of Ophthalmology, Kafkas University Medical Faculty, Kars, Turkey.
GSM: +905054526749 F.: +90 4742251195 E-Mail: hgsoysal@gmail.com
ORCID ID: 0000-0002-1907-7548

Introduction

Molluscum Contagiosum (MC) is a skin infection caused by DNA pox viruses [1]. Skin lesions are typically round, raised nodules with umbilicated centers. It usually limits itself within a few months. However, lesions located at the eyelid margin can cause follicular conjunctivitis and sometimes trachoma-like keratitis [2]. The delay in diagnosis in these patients leads to a chronic disease and may cause many unnecessary treatments. However, the diagnosis and treatment of the disease is easy. Cryotherapy, curettage of the lesion and cauterization of the base, topical chemical and antiviral agents and oral cimetidine can be used for rapid resolution of MC [3]. In this study, clinical findings, diagnosis and treatment results of ophthalmic MC patients in our clinic are presented.

Material and Method

The records of patients that were diagnosed as MC lesions on the eyelids and ocular structures between 2010 and 2016 were retrospectively reviewed. Ethic Committee Approval was obtained from the Institution. After the patient's consent has been received for each patient, complete ophthalmologic findings were recorded; including age, presenting complaints, duration of the symptoms, past history of systemic diseases, previous treatments and ophthalmological findings especially related to the eyelids, eyelid margin, conjunctiva and cornea. Cooperated patients were treated by using topical anesthetic in outpatient clinic; children and non-cooperated patients were treated under sedative anesthesia in operating room by the same physician. Treatment was performed by extraction and curettage of the lesion by squeezing with the help of a clamp or extirpation with cauterization of the base. Extracted lesion content was taken carefully in order to prevent spreading and contamination, and the appropriate ones were sent to the pathological investigation.

Results

The mean age of 20 patients were 31,2 (6 – 61). In all patients, there was a typical molluscum lesion on the lower or upper eyelids, single or multiple, slightly raised from the skin and with an umbilication. Seven patients had bilateral involvement. Only 3 cases had a single lesion (Figure 1) while the other cases had lesions more than one (Figure 2). While the presenting complaints were hyperemia, lacrimation and discomfort in 12 patients, 10 patients were aware of lesion and 2 patients had both features. Fourteen patients had lesions on the eyelid margin and follicular conjunctivitis was detected in 12 of these patients (Figure 3). Most of these patients had a history of ophthalmologic examination with the same complaints and treatment with topical drops before, and even a history of applications to many different centers. Pathological examinations revealed the results compatible with the MC. In 10 patients, lesions were limited to the eyelid and periocular area. In the other 10 patients (50%), lesions were on the other parts of the face, neck or body and they were referred to the dermatology or plastic surgery departments. No immunosuppressive disease (HIV...etc) was detected in these patients. Six patients were treated in operating room and 14 patients in outpatient clinic. Complaints about follicular conjunctivitis and ocular surface were completely resolved af-

ter the treatment. No relapse was encountered except one case, and in this case, lesions appeared after 3 months on the eyelid of the other side was interpreted that they are not relapse, but unnoticed multiple involvement during the first examination.



Figure 1. Single MC lesion on the upper eyelid.



Figure 2. Multiple MC lesions on the lower eyelid and lid margin.



Figure 3. Follicular conjunctivitis and MC lesion on the eyelid margin.

Discussion

Ophthalmic MC can occur in many different ways, such as eyelid lesions, conjunctival or corneal disease [4]. Patients with fol-

lucular conjunctivitis that lasted a long time and unresponsive to treatment should be suspected as having MC, thus the eyelid margins of them should be examined carefully. Charteris et al [4] emphasized that only 60% of the patients could be diagnosed on the first visit. Particularly; in patients with undetected lesions between the eyelashes causing conjunctivitis, skipping the diagnosis is likely. Most of our patients had a history of admission to different centers with complaints of hyperemia, irritation and discomfort in the eyes, and having an unsuccessful treatment. Although MC is usually a self-limiting infection, it is necessary to treat lesions and accelerate the treatment in order to prevent contamination and scar [5]. Surgical and medical treatment options appear to be effective in the eradication of skin lesions [6]. The treatment options such as silver nitrate, phenol, trichloroacetic acid, topical antiviral cidofovir, intralesional or systemic interferon alpha, salicylic acid, glycolic acid, tretinoine, podofilox, cantharidin, potassium hydroxide have been reported [7, 8]. In a study of van der Wouden et al [7] consisting of 495 patients, it has been observed that no agent alone is efficient enough in medical treatment of MC. And surgical treatments include curettage of the lesion and cauterization of the base, cryotherapy, extraction, photodynamic therapy and laser [7, 8]. The best way to manage the chronic ocular surface involvement is to remove the lesion [9]. In a study on 124 children aged between 1-18 years, four MC treatment methods were compared. In this study, the first group consisted of curettage, the second group cantharidin, the third group combination of salicylic acid-lactic acid and the fourth group imiquimod therapy. Curettage was found to be the most effective treatment with the least side effects among these four groups [10]. In a case report published by Karabulut et al. [5], an 8 year old patient had multiple MC lesions on the eyelids. Only a few lesions were squeezed and the white cheesy content was evacuated and it was observed that all the lesions were disappeared. It has been emphasized that the localized immune response generated by destruction can produce a systemic inflammatory response. In our study, medical treatments were not preferred due to the difficulty of application and side effects on eyelids and especially on the eyelid margins. Treatment of MC was performed by extraction and curettage of the lesion by squeezing with a clamp or excision and cauterization of the lesion. An efficient treatment can be achieved by squeezing and extraction of the content of the lesion, even in the office conditions in cooperated patients with no need for a chemical agent or other equipment.

Conclusion

Ophthalmic MC is an infection whose diagnosis is easy and treatment is cheap. It should be considered in the etiology in the patients with long-lasting refractory follicular conjunctivitis and the lid margins should be examined carefully.

Acknowledgements

Conflict of interest: The authors declare that they have no conflicts of interest related to the subject matter or materials discussed in this article.

Scientific Responsibility Statement

The authors declare that they are responsible for the article's scientific content including study design, data collection, analysis and interpretation, writing, some of the main line, or all of the preparation and scientific review of the contents and approval of the final version of the article.

Animal and human rights statement

All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. No animal or human studies were carried out by the authors for this article.

Funding: None

Conflict of interest

None of the authors received any type of financial support that could be considered potential conflict of interest regarding the manuscript or its submission.

References

1. Epstein WL. Molluscum contagiosum. *Semin Dermatol.* 1992;11:184-9.
2. Mathur SP. Ocular complications in molluscum contagiosum. *Br J Ophthalmol.* 1960;44:572-3.
3. Schornack MM, Siemsen DW, Bradley EA, Salomao DR, Lee HB. Ocular manifestations of molluscum contagiosum. *Clin Exp Optom.* 2006;89:390-3.
4. Charteris DG, Bonshek RE, Tullo AB. Ophthalmic molluscum contagiosum: clinical and immunopathological features. *Br J Ophthalmol.* 1995;79:476-481.
5. Karabulut GÖ, Ozturker C, Kaynak P, Akar S, Demirok A. Treatment of Extensive Eyelid Molluscum Contagiosum with Physical Expression Alone in an Immunocompetent Child. *Turk J Ophtalmol.* 2014;44:158-160.
6. Hanson D, Diven DG. Molluscum contagiosum. *Dermatol Online J.* 2003;9 (2): 2.
7. van der Wouden JC, van der Sande R, van Suijlekom-Smit LW, Berger M, Butler CC, Koning S. Interventions for cutaneous molluscum contagiosum. *Cochrane Database Syst Rev.* 2009;7:4.
8. Scheinfeld N. Treatment of molluscum contagiosum: a brief review and discussion of a case successfully treated with adapelene. *Dermatol Online J.* 2007 Jul 13; 13 (3): 15.
9. Ritterband DC, Friedberg DN. Virus infections of the eye. *Rev Med Virol* 1998;8:187-201.
10. Hanna D, Hatami A, Powell J, Marcoux D, Maari C, Savard P, Thibeault H, McCuaig C. A prospective randomized trial comparing the efficacy and adverse effects of four recognized treatments of molluscum contagiosum in children. *Pediatr Dermatol.* 2006;23:574-9.

How to cite this article:

Soysal HG, Ergün H, Üçer MB, Nohutcu AF. Ocular manifestations of molluscum contagiosum, retrospective case series and literature review. *J Clin Anal Med* 2019;10(3): 365-7.