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# Conjunctivitis secondary to chickenpox: A case report

Suçiçeği nedeniyle gelişen konjonktivit : Bir olgu sunumu

## Gurbet Acar Yüce<sup>1</sup>, İsa An<sup>2</sup>, İsmail Alpfidan<sup>3</sup>

#### Abstract

Chickenpox is a common benign disease that is typically characterized by vesicular rashes. The disease is more common in children. Ocular complications of the chickenpox are rare. Vesicular eyelid lesions, conjunctivitis and corneal lesions are seen in almost 4% of chickenpox cases.

Here, we report on a rare case of conjunctivitis secondary to chickenpox. Keywords: Conjunctivitis, chickenpox, vesicular  <sup>1</sup> Department of Dermatology, Erciş State Hospital, Van, Turkey
<sup>2</sup> Department of Dermatology, Dicle University

Faculty of Medicine, Diyarbakir, Turkey <sup>3</sup>Department of Ophthalmology, Erciş State Hospital, Van, Turkey

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Sorumlu yazar / Corresponding author

Gurbet Acar Yüce

Erciş State Hospital, Erciş, Van, Turkey Phone: +90.432 351 96 61; fax: +90.432 351 96 61

e-mail: drgurbetdermatoloji@hotmail.com

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## Öz

Suçiçeği, yaygın veziküler döküntüler ile karakterize, benign bir hastalıktır. Hastalık çocuklarda daha sık görülür. Suçiçeğine bağlı gelişen oküler komplikasyonlar nadirdir. Suçiçeği olgularının yaklaşık %4'ünde veziküler göz kapağı lezyonları, konjonktivit ve korneal lezyonlar görülür.

Bu yazıda suçiçeğine ikincil nadir görülen bir konjonktivit olgusunu sunuyoruz. Anahtar sözcükler: Suçiçeği, konjonktivit, veziküler

### Introduction

Primary varicella infection, also referred to as chickenpox, is a common benign disease that is typically characterized by fever and exanthamatous vesicular rashes. Although the disease is more common in children, it can also be diagnosed in healthy or immunocompromised adults. Ocular complications of the chickenpox are rare [1-4]. Anterior uveitis is one of the most frequently reported ocular manifestations of chickenpox in childhood. However, conjunctivitis is rarely seen in chickenpox cases [1, 5].

Here, we report on a rare case of conjunctivitis secondary to chickenpox.

#### **Case report**

A nine-year-old male child presented to our clinic with erythematous papules and pustules on his face and trunk that developed 1 week ago. Dermatological examination was notable for numerous erythematous papules and pustules on the face (Figure 1 and Figure 2) and the neck. The patient was diagnosed as chickenpox based on existing clinical signs and symptoms. The patient was referred to ophthalmology clinic due to complaints of redness, irritation, watering and gums in the eyes, more remarkably in the right eye (Figure 3). A complete ophthalmological examination was done. In the examination, visual accuracy was absolute in bilateral eyes. Non-contact tonometer showed normal intraocular pressures in bilateral eyes. In biomicroscopic examination, a localized hyperemic lesion was identified that was located at 8 o'clock radius in the conjunctiva of the right eye, not reaching to the limbus. There was no involvement of the sclera with an intact area in the limbus. However, minimal diffuse hyperemia in bilateral conjunctiva was also seen. No pseudo-membrane or membrane formation was observed in the palpebral conjunctiva. Eye movements and light reflexes were normal in bilateral eyes. Bilateral cornea and the anterior chamber were intact, while other findings of the anterior and posterior segments were normal. Conjunctivitis secondary to chickenpox was diagnosed based on current signs and symptoms. The patient was started on topical acyclovir 3% ointment (Zovirax 3% eye ointment, Glaxo, UK) 5X a day and prophylactic topical netilmicin 0.3% drop (netira drop, Teka, Turkey) q.6hr for conjunctivitis. In the follow-up, potential involvement of the anterior and posterior segments was not observed, while the conjunctival lesion and conjunctivitis improved.

Written consent was taken from the parents of the patient.

Figure 1: Numerous erythematous papules and pustules are seen on the face.



Figure 2: Numerous erythematous papules and pustules are seen on the neck.



Figure 3: Diffuse, but mild hyperemia exists in bilateral conjunctiva of the patient, more remarkably in the right conjunctiva.



#### Discussion

Varicella zoster virus may re-activate and cause Herpes Zoster and many neurological conditions following a long incubation period in sensorial nervous ganglion [6]. Although ocular involvement is well known in Herpes Zoster, ocular complications of the chickenpox are rare. Vesicular eyelid lesions, conjunctivitis and corneal lesions are seen in almost 4% of chickenpox cases. Other ocular complications such as canalicular obstruction, anterior uveitis, cataract, optic neuritis, pigmented optic disc and extraocular muscle paralysis as well as internal ophthalmoplegia may be seen in relation with chickenpox, while central nervous system involvements are usually manifested by aseptic meningitidis and fulminant encephalitis [2, 7].

Mild catarrhal conjunctivitis is identified in the chickenpox; discrete lesions in the conjunctiva, excluding the limbus, are very rare. Limbal lesions mimic phlyctenule and may improve without development of ulcers. However, it usually transforms into vesicular form followed by pustules and ulceration [8].

Jordan et al. [5] identified chickenpox-related conjunctival vesicles in 8 of 24 children with active chickenpox and ocular involvement and conjunctivitis in only one patient. These lesions developed in day 1 to day 5 of the onset in all patients and they disappeared within 2 weeks without any complication. Those patients with conjunctival involvement were followed up without a treatment; all lesions healed without development of squeal. Our patient was started on topical acyclovir and topical netilmicin and the patient recovered within 2 weeks without any sequeal.

To our best knowledge, the literature reports very scarce cases with conjunctivitis secondary to chickenpox. Clinicians should recognize this rare complication of the chickenpox infection that is commonly faced in the clinical practice.

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