



LETTER

A Case of Bacterial Conjunctivitis due to *Streptococcus pneumoniae* in an Infant

Hatice Buse Uras^{1*}, Kerametdin Yanık², Cemal Yeter²

¹Psychology Department, Texas Christian University, Fort Worth, 76129, Texas, United States

²Güneşli Erdem Hastanesi, Bağcılar/İstanbul, 34212, Türkiye

*Corresponding Author: Hatice Buse Uras; Email: busehaticeuras@gmail.com

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Dear Editor,

Bacterial conjunctivitis is a common reason for children to be seen in pediatric practices. Even though most cases of conjunctivitis in adults are due to viral infection, it is more likely to develop from bacterial infections in children [1]. In the neonatal period, bacterial conjunctivitis is rare, and the most common causative organism is *Staphylococcus aureus*, followed by *Chlamydia trachomatis*. In infants and older children, bacterial conjunctivitis is often caused by *Haemophilus influenzae*, *Streptococcus pneumoniae*, and *Moraxella catarrhalis* [1]. Bacterial conjunctivitis is clinically characterized by purulent eye discharge, sticky eyes on awakening, and conjunctival injection [2]. A correct diagnosis is important for appropriate treatment to be instituted. In our letter, we aimed to present a case of bacterial conjunctivitis in an infant and investigate the relationship between the time to diagnosis of *S. pneumoniae* conjunctivitis in infants and the effectiveness of the prescribed treatment. We have observed that an early diagnosis and treatment of bacterial eye diseases, such as the one in our case, can significantly speed up the process of recovery.

A 5-day-old female infant presented to our ophthalmology department with a 3-day history

of irritation, itching, and tearing on the right eye. The patient was delivered by cesarean section and was discharged 2 days after birth. On ophthalmologic examination, the patient was diagnosed with keratitis. Macroscopically, redness was observed around the eyes; the anterior and posterior chamber of the right eye was normal, the conjunctiva was less red than in any keratitis case, and the lesion on the cornea was not diffused. The left eye was completely normal: the anterior chamber, pupil, and lens appeared normal. The pupils were dilated. On examination of the keratitis focus, retinoscopy reflections were absent over the cornea's central and lower half. The right corneal scraping and cultures were done; gram stains of the conjunctiva and cornea were performed. *S. pneumoniae* were seen under microscopic examination of gram-stained specimens.

The patient was started on azithromycin drops three times a day. One week later, on her second examination, the patient's family reported that she was less irritable; the tearing and redness around her eyes also reduced. In her 3rd week of treatment, the patient recovered completely. In the literature, it has been highlighted that although signs of spontaneous recovery may be observed

within 2 weeks in the majority of cases [3], for patients with conjunctival irritation and discharge, indicative of toxic conjunctivitis, long-term usage of eye drops with preservatives is recommended for complete recovery. However, in our case, our patient showed signs of recovery in her 1st week of treatment and subsequently achieved full recovery in her 3rd week of treatment.

In conclusion, we observed that the time to diagnosis of bacterial eye diseases, such as *S. pneumoniae* conjunctivitis, could be associated with more effective treatment and consequently less lengthy treatment time in infants. When conjunctivitis is suspected in children, it is appropriate to prescribe treatment and recommend protective measures as soon as possible. If there is no response to treatment within 5 days, the patient should be referred to an ophthalmologist without delay. Delays should be

avoided as they could harm the patient [4]. Ultimately, more detailed research with specialized examination and consideration of different *Streptococcus* species and environmental factors is needed.

Conflicts of interest

The authors declare no conflicts of interest.

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