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Therapy of ptosis in preseptal cellulitis resulting from an insect bite

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Periorbital cellulitis, or preseptal cellulitis (PC) is an inflammation and infection of the eyelid and portions of skin around the eye anterior to the orbital septum. The disease affects kids more commonly than adults. Adults can also get PC, but it is just not as common. PC in adults is caused in the same way and treatment is the same as in children. As for disease etiology, it can develop as a complication of eyelid infection-hordeolum, chalazia, dacryocystitis, periocular and facial trauma, upper respiratory tract infections, dental diseases, sinusitis, and insect or animal bites. In the study of Bagheri et al., the most common cause of PC was shown to be sinusitis (36.6%), the second - skin lesion. It is clear that in the clinical case, insect sting is an etiological factor rarely found in the sources (6.1%). The upper eyelid edema, which is the main clinical symptom during insect stings, may progress to ptosis in the delayed phases. Symptoms include tenderness, chemosis of lids, swelling, warmth, redness, and discoloration of the eyelid, fever, but vision is not affected, and no proptosis is observed. Complications without the proper treatment appear as orbital cellulitis, orbital abscess, loss of vision, cavernous sinus thrombosis, subperiosteal abscess, intracerebral abscess, meningitis, empyema or abscess of the epidural or subdural space. Diagnosis is usually based on the clinical findings and microbiological and radiological examination. Differential diagnosis of PC includes its distinction from orbital cellulitis, orbital pseudotumor, herpes zoster, blepharitis, conjunctivitis, and dermatitis. Oral treatment of PC is carried out by antibiotics against gram-positive and -negative bacteria, such as ampicillin, amoxicillin/clavulanate, fluoroquinolones (levofloxacin), azithromycin (also covers some anaerobic bacteria), clindamycin. Against gram-positive (Staphylococcus) in case of an evident eyelid trauma, dicloxacillin, flucloxacillin, and first-generation cephalosporins (cefalexine, cefazolin) are preferable. Intravenously used antibiotics provide coverage to gram-positive and gram-negative bacteria. For this, the third-generation cephalosporins, such as ceftriaxone, cefotaxime, and ceftazidime (note: but these medications are less sensitive to β-lactamase produced by bacteria, such as S. aureus), as well as ampicillin/sulbactam may be administered.

A case report. The patient underwent surgery for cataracts with intraocular lenses for both eyes due to glaucoma. In addition, the patient's left upper eyelid was stung by an insect and the condition worsened an hour later. Initial complaints included headache, general weakness, and loss of appetite. Later, the upper eyelid of the left eye, forehead, eyebrow, and hairy area of the head are involved in the process by degrees. We used the following antimicrobial therapy for treatment: coamoksiklav 250 mg every 6 hours, benzylpenicillin 2.4 mg 4 days, eye drop moxiloxacin 1x 5/ 4 days, eye drop maxidex (dexamethasone) 1x4/ 7 days, eye drop NSAID 1x4/ 14 days. After this therapy, there was no complication of PC for the patient, since he received the general treatment immediately. However, the local signs including a residual sign, and ptosis of the upper eyelid have remained.

As a result of our additional conservative treatment by proserin and glycine, the upper eyelid of the patient was raised and ptosis was removed.

Key words: Antimicrobial therapy, glycine, insect bite, intraocular lens, preseptal cellulitis (PC), proserin, ptosis

Biography

Mahira Firudin kizi Amirova is working at Azerbaijan Medical University, Azerbaijan.

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