ACUTE SUPPURATIVE DACRYOADENITIS

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MJAFI 2000; 56 : 151-152

KEY WORDS: Suppurative dacryoadenitis.

Introduction

Dacryoadenitis is an acute or chronic inflammation of lacrimal gland caused by a variety of micro-organisms [1-4]. It can be of non-infective variety too. Acute suppurative dacryoadenitis is a very rare condition and the last case was published in 1987 [2]. A case is presented where a young adult developed acute bacterial dacryoadenitis leading to suppuration. The pathogenic organism was staphylococcus aureus.

Case Report

A 24-year-old male developed redness and pain in the right eye and slight swelling of the right upper lid. He reported to some general practitioner who suggested it to be minor insect bite or insect allergy. He was given antihistaminic tablets and chloramphenicol + dexamethasone eye drops. After two days when the congestion of eye increased and thinking that he is allergic to chloramphenicol the previous drops were stopped and dexamethasone + neomycin drops were prescribed. Unhappy with all these treatment he reported to our eye OPD on the ninth day.

His body temperature was 38°C. He was not having any systemic disease e.g. mumps, measles, influenza etc.

There was no adjacent skin infection and no history of direct trauma. His right upper eyelid showed oedema and tenderness especially in lateral half. Conjunctiva was congested with scanty discharge. On palpation, there was a tender nodular swelling in the lateral part of the right upper eyelid. There was no proptosis, deviation of eyeball or restriction of ocular movements. Cornea and the deeper eye were unaffected. On raising the lid, the swollen lacrimal gland bulged out from its under surface, it had a pus point on its surface.

A diagnosis of acute suppurative dacryoadenitis involving palpebral portion of the lacrimal gland was made. A sample of conjunctival discharge was collected for culture from the inferior fornix. Pus from the lacrimal gland abscess was drained by making a nick at the pus point. Sample of the pus was also sent for culture. Both these samples grew staphylococcus aureus which was resistant to chloramphenicol, but sensitive to ampicillin, gentamicin and ciprofloxacin. A temporary fistula lasted for four days at the drainage site, but with appropriate systemic and topical antibiotics, the patient became completely asymptomatic after two weeks.

Discussion

Dacryoadenitis means inflammation of lacrimal

gland. It may be acute or chronic. Acute dacryoadenitis is a rare condition, occurring roughly one in 10000 to 14000 ophthalmic cases [1]. Acute suppurative bacterial dacryoadenitis is still rarer and as far as authors knowledge, only one case has been published in last 15 years [2].

Acute dacryoadenitis may result from systemic infections such as mumps, measles, influenza, infectious mononucleosis, herpes zoster and gonorrhoea and it can also occur consequent to staphylococcal conjunctivitis [1,3,4].

Chronic dacryoadenitis can result from tuberculosis, syphilis and sarcoidosis [1,5,6]. Dacryoadenitis can result from fungal and parasitic infections. Acute suppurative dacryoadenitis has been reported to be caused by a crysticercus cellulosa [7]. Non-infective causes such as pseudotumour can give rise to dacryoadenitis [8,9].

This patient had acute bacterial suppurative dacryoadenitis. Such cases can be caused by adjacent infections such as erysipelas, may result from a direct penetrating wound or a metastasis of distant infection such as gonorrhoea or unknown bacteremia, it can result from ascent of conjunctival flora through lacrimal ducts [1].

Acute dacryoadenitis can affect either palpebral part, or orbital part of the gland separately, or both of them. In the involvement of palpebral part, fullness and pain appears in the upper and outer part of the orbit, followed by an inflammatory oedematous swelling of the outer third of the upper lid producing a mechanical ptosis and typical 'S' shaped curve of the upper eyelid margin. Palpation of the lid shows a tender, tense, nut shaped swelling in its substance, continuous neither with the orbital nor the ciliary margin. When the lid is raised the swollen gland may be seen bulging from its under surface. There is no disturbance of ocular movement and there is no proptosis. The inflammation may resolve completely with antibiotics, or it may lead to suppuration.

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When the orbital part of gland is involved, the symptoms are accentuated, the general picture is of an orbital cellulitis. Proptosis may appear and eye may be deviated down and inwards [1]. The case which is presented here had involvement of palpebral portion of gland only.

Treatment of acute bacterial dacryoadenitis is with systemic and topical antibiotics. If abscess forms, it has to be drained. Treatment of other types of inflammations depends on their aetiology.

Sometimes complications can arise such as development of fistula, consecutive lacrimal hyposecretion, severe reactive oedema of the orbital tissue [1].

In the case, the causative organism was staphylococcus aureus. Appropriate antibiotics were not given in time and instead topical steroids were given, which possibly led to development of suppuration.

Due to rarity of occurrence of acute suppurative dacryoadenitis, the index of suspicion remains low and that is why the case is presented.

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