DACRYOCYSTITIS CAUSED BY CANDIDA LUSITANIAE

DACRIOCISTITIS POR CANDIDA LUSITANIAE

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ABSTRACT

Case report: We report the case of a 60-year-old woman with recurrent dacryocystitis of the right lacrimal sac. She did not recover after medical treatment, nor after dacryocystorhinostomy with canalicular intubation. She also had dacryocystitis on the left side. The material that was obtained during surgery was grown in a culture medium and Candida Lusitaniae was identified as the responsible organism. All symptoms disappeared after topical treatment with amphotericin B and dacryocystorhinostomy.

Discussion: Dacryocystitis caused by Candida Lusitaniae is very rare. We should always consider whether Candida Lusitaniae is responsible for the primary infection or is the agent resulting from a superadded infection caused by previous antibiotic therapy (Arch Soc Esp Oftalmol 2007; 82: 365-368).

Key words: Candida Lusitaniae, Chronic Dacryocystitis, Fungal Dacryocystitis, Dacryocystorhinostomy, Amphotericin B.

RESUMEN

Caso clínico: Se presenta el caso de una mujer de 60 años con episodios recurrentes de dacriocistitis aguda derecha que no cedían con tratamiento médico ni tras una dacriocistorrinostomía con intubación bicanalicular. Presentó también una dacriocistitis izquierda que requirió una dacriocistorrinostomía. Se tomaron muestras intraoperatorias y en el cultivo apareció Candida Lusitaniae como germen responsable. Tras tratamiento tópico con Anfotericina B, asociado a dacriocistorrinostomía, la clínica desapareció.

Discusión: La dacriocistitis por Candida Lusitaniae es muy rara. Cabría preguntarse si Candida Lusitaniae es el germen primario o la dacriocistitis podría ser por sobreinfección fúngica debido al tratamiento antibiótico de las distintas dacriocistitis agudas sufridas.

Palabras clave: Candida Lusitaniae, dacriocistitis crónica, dacriocistitis fúngica, dacriocistorrinostomía, anfotericina B.
INTRODUCTION

The infection of the lacrimal sac is usually secondary to the obstruction of the nasolacrimal duct preventing drainage from the lacrimal sac to the nose, and resulting in a retention which gives way secondarily to infection. This infection's etiology is usually bacterial. The mycotic etiology of chronic dacryocystitis is unusual, although fungi are a known causative agent for different ocular and corneal infections (1,2). Nevertheless, the role of fungi in the obstruction of the nasolacrimal duct is not clear yet (1,2).

Regarding the etiology of chronic dacryocystitis, it is worth noting that the most frequent agents are microorganisms such as bacteria, especially gram-positive rods (3,4) [above all, staphylococci (3)], whereas gram-negative rods and anaerobic bacteria are less frequent and fungi are highly unusual. It is worth mentioning the presence of more than one microorganism responsible for chronic dacryocystitis (4).

Candida lusitaniae is a mold fungus which colonizes the mucus.

CASE REPORT

We report the case of a female patient suffering from dacryocystitis caused by Candida Lusitaniae, a mold fungus which usually colonizes the mucus. The 60-year-old woman arrived in the emergency room reporting pain and swelling in the right lacrimal sac area. Her history included treatment with dorzolamide plus timolol to treat an open-angle chronic glaucoma.

Exploration revealed a right acute non-oozing dacryocystitis which required treatment with local heat, chloramphenicol ointment plus dexametasone, and systemic antibiotics and anti-inflammatory drugs. The treatment mitigated the acute condition, which was reduced to a purulent dacryocystocele with brownish mucous secretion requiring drainage and threading. Furthermore, both lacrimal ducts were confirmed to be impervious and heterorefluent; the conjunctival smear taken was negative.

Treatment for dacryocystocele was provided until attaining scarring. Subsequently, a dacryocystorhinostomy and bicanalicular intubation were performed on the said eye. Two months after performing the dacryocystorhinostomy and after a satisfactory postoperative, the patient went again to the doctor's office reporting a new episode of acute dacryocystitis which remitted thanks to the systemic and external treatment prescribed. Upon removal of the endonasal tubes, a brownish crust impacting in the osteotomy became apparent. Samples of this secretion were taken for culture, which was once again negative. In view of the situation, the dacryocystorhinostomy was reviewed, noticing a brownish secretion, a sac with bloody, purulent matter which was subjected to a smear (whose culture was again negative), extracting fibrotic matter during the osteotomy which was subsequently submitted to the pathological anatomy unit. To complete the procedure, the osteotomy was expanded by performing a bicanalicular intubation.

Two weeks later, a brownish mucous fluid emerged once again, thus proceeding to remove intubation and perform daily cleansing of the lacrimal duct with Tobramycin plus Dexamethasone.

Furthermore, due to the impermeability of the left lacrimal duct, a cystocele formed along the said duct, leading to a new dacryocystorhinostomy on the left side with bicanalicular intubation, taking an intraoperative sample for culture and antibiogram where Candida lusitaniae appeared as the causative germ (figs. 1, 2).

Treatment began with Anfotericine B eye drops, mitigating the symptoms in both eyes and remaining asymptomatic since then, with permeable lacrimal duct in both eyes.

DISCUSSION

The mycotic flora is not a frequent component of the lacrimal duct. The most frequent fungi involved in the lacrimal duct infection are species...
such as candida, aspergillus, pytirosporum orbiculare, actinomyces and cryptococcus (1,5). The link between the candida and pytirosporum species and the formation of dacryolites (5) is well known, although it has not been clearly determined yet whether mycotic infections result in a predisposition towards the formation of dacryolites or else dacryolites themselves favor the development of fungal infections (5).

More specifically, dacryocystitis caused by Candida lusitaniae is extremely rare, and no related case has been published in the literature so far. It was suppressed only when the anatomical predisposing factor was eliminated and the anti-fungal treatment was administered.

One should clarify whether the Candida lusitaniae is the germ responsible for the obstruction from the beginning or else there could be a fungal over-infection due to the use of antibiotic therapy as the treatment prescribed for previous dacryocystitis whose etiology is possibly bacterial.

It is worth mentioning the fact that the cultures taken and processed to detect the presence of fungi were performed in view of the persistent infection despite treatment. In any case, the persistence of infection despite the antibiotic treatment, together with the existence of a brownish secretion and the immediate resolution of the infection on the left eye after having applied the antifungal treatment, suggests the fungal etiology (caused by the candida lusitaniae) of dacryocystitis.

**REFERENCES**


