

Lacrimal Masquerades in acute, sub-acute and chronic dacryocystitis

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Background

- Dacryocystitis is caused by lacrimal sac inflammation secondary to obstruction of the lacrimal duct, resulting in a secondary infection due to stagnant tears.
- Lacrimal sac neoplasms and inflammatory conditions have the potential to present with symptoms typical of secondary acquired nasolacrimal obstruction or dacryocystitis.
- We present a series of patients from three Oculoplastics consultants in whom lacrimal malignancies and inflammatory conditions masqueraded as acute, sub-acute or chronic dacryocystitis.

Discussion

- Non-specific inflammation is the most common histological finding in lacrimal sac biopsies during routine dacryocystorhinostomies (DCR) but systemic inflammatory disorders, localised infections, primary sac neoplasms, or metastasis have also been reported.
- Previous studies have shown a variable prevalence of 0-8% of specific pathology, other than non-specific inflammation, in patients undergoing DCR
- Although preoperative imaging is not required in most presenting with a history of dacryocystitis, one must consider the possibility of an alternative pathology in patients with atypical disease progression and those with a history of malignancies or systemic inflammatory conditions
- Virtual consultations (over the telephone) such as those undertaken during the COVID pandemic could result in misleading diagnosis and management as presumed dacryocystitis.

Age	*History and examination at presentation*	*Investigation and Intervention*	*Histological diagnosis*	*Management*
78	Initial presentation with acute dacryocytisis followed by a 8 month history of chronic dacryocystitis Medial canthal mass and epiphora PMH: Non Hodgkins lymphoma	Dacrocystectomy performed as patient medically unsuitable for general anaesthetic	*Non Hodgkins lymphoma*	Referred to Oncology Good response to systemic chemotherapy
49	Acute dacryocystitis Painful cellulitic lump over left lacrimal sac region and short history of epiphora	• Intra op- patent naso lacrimal system • Bony erosion of the lacrimal crest and rugrose appearance of the lacrimal sac mucosa.	*Squamous cell carcinoma*	Orbital exenteration. Recurrence in ethmoid sinuses 2 years later. Further excision and radiotherapy. No recurrence for 9 years.
47	Acute dacryocystitis	• Emergency abscess drainage • Haemolacria during sac wash out in clinic • DCR – inflammatory changes only • Re-presented 10 years later with nasal symptoms to ENT • Nasal cavity mass noted – biopsied	*Squamous cell carcinoma*	Removal of inferior turbinate, partial removal of lateral nasal wall and ethmoidal air cells followed by radiotherapy. No recurrence at 4 year review.
72	Acute on chronic dacryocystitis with swelling and epiphora	• DCR • Recurrence of swelling 1 year and 2 years post DCR – under ENT • Altered blood aspirated from swelling • Underwent dacrocystectomy 3 years post DCR	*Dacryocystocele*	Intranasal ethmoidectomy, decompression and marsupalisation of nasal mucocoele followed by dacrocystectomy. No recurrence of symptoms for 5 years
71	Recurrent presumed acute dacryocystitis Subsequent rapidly enlarging right medial canthal swelling	• Listed for DCR after first episode of dacryocystitis • Delay due to COVID • Patient had further episode of dacryocystitis – managed via telephone consultations • CT – Large tumour • Punch biopsy	*Squamous cell carcinoma*	Exenteration with rhinectomy, maxillectomy, endoscopic sinus clearance. Patient awaiting prosthesis No recurrence at 1 year review
39	Long history of epiphora with multiple episodes of presumed acute dacryocytitis. Tender left sided mucocele	• Listed for DCR • Acute episodes managed over telephone appointments due to pandemic • Intra -op – dark mass with inspissated secretions	*Inflamed ductal cyst*	Discharged post operatively due to significant symptomatic improvement
74	Sub acute dacryoystitis with a firm, erythematous and non tender mass in the medial canthus Associated epiphora	• Under ophthalmology for glaucoma when developed medial canthal swelling • CTDCG • EUA with incisional biopsy	*IgG4 disease*	Good response to systemic steroids. Complete resolution of symptoms within three months of commencing treatment
15	Chronic dacryocystitis with epiphora and history of nasal surgery Systemically well	• Nasal biopsy – inflammation, +ve ANCA. • CT- left medial wall abscess and mucosal thickening extending into orbit	*Granulomatosis with polyangiitis*	In remission with initial cyclophosphomide therapy and methotrexate maintenance
62	Acute dacryocystitis with subsequent rapid growth of medial canthal mass while awaiting DCR	•At pre op ward round, lacrimal malignancy was suspected due to rapid growth •Therefore, DCR converted to an incisional biopsy of the lacrimal sac	*Squamous cell carcinoma*	Right orbital exenteration and hemimaxilectomy followed by radiotherapy. No recurrence at 2 year follow up