Photo Essay

Solitary Fibrous Tumor of the lacrimal sac

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Key words: Epiphora, lacrimal sac, solitary fibrous tumor

Solitary Fibrous Tumor (SFT) was first described as a primary spindle cell tumor of the pleura.[1] There has been an increase in its incidence in nonpleural sites. SFTs of the lacrimal sac are rare with only six cases reported. We report the first case from the Indian subcontinent. A 65-year-old female presented with right eye watering for 2 years, associated with painless and progressive swelling at right medial canthus. Her best corrected visual acuity was 20/50 in right and 20/20 in left eye. External examination revealed a firm, well-circumscribed, nontender mass in right lacrimal sac region extending above medial canthal tendon [Fig. 1]. There was no fistula and no regurgitation of fluid on pressure over lacrimal sac. Anterior segment examination revealed age-related immature cataracts in both the eyes while posterior segment examination was normal.

Computed Tomography (CT) scan revealed a well-circumscribed, homogenous, right medial canthal mass of about 2.7 × 2.1 cms extending into the nasolacrimal duct with adjacent bone remodeling [Fig. 2a and b]. En bloc excision of the mass along with the nasolacrimal duct was performed through both external and endonasal approach [Fig. 3a and b]. Histopathology revealed partially capsulated tumor with hyper and hypocellular areas and scattered thin-walled blood vessels [Fig. 4a]. The cells were distributed haphazardly with spindle-shaped and epithelioid morphology, mitotic index of < 4/10 high power field and absence of necrosis or giant cells were also noted [Fig. 4b]. Immunohistochemistry was diffusely positive for CD34 and Bcl-2 and negative for cytokeratin, S-100, smooth muscle actin (SMA), epithelial membrane antigen (EMA), and desmin thus establishing the diagnosis of lacrimal sac SFT [Fig. 5a and b]. The patient was asymptomatic at 6 weeks follow-up.

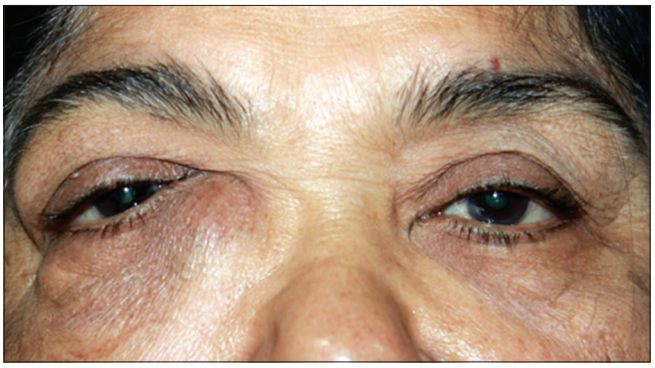

Figure 1: Clinical photograph of the patient showing right eye upwards and lateral dystopia due to the mass lesion in the lacrimal sac area in the inferonasal quadrant of the orbit

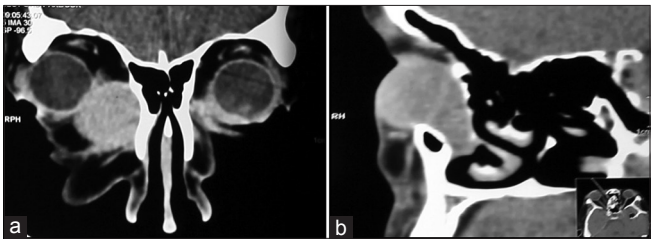

Figure 2: (a) Computed Tomography (CT) scan coronal view showing a well-circumscribed, homogeneous right orbital mass in the region of lacrimal sac. (b) CT scan sagittal view showing the mass extending inferiorly into the right nasolacrimal duct

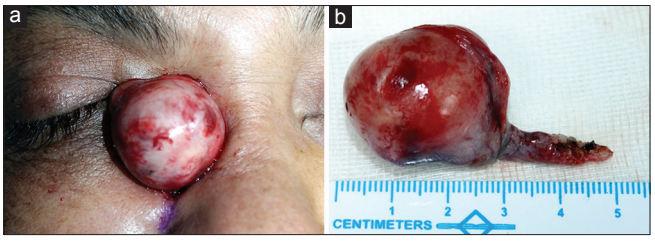

Figure 3: (a) Intraoperative appearance of the mass. (b) Macroscopic appearance of the lacrimal sac tumor after removal along with the nasolacrimal duct

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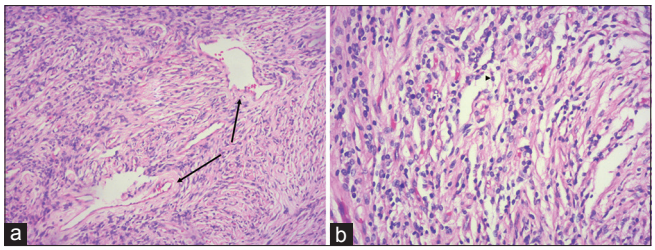

Figure 4: (a) Microphotograph (Haematoxylin and Eosin staining, 10×) showing a 'patternless' growth pattern with thin-walled vascular spaces in a branching pattern (black arrows). (b) Microphotograph (Haematoxylin and Eosin, 20×) showing spindle cells (black arrowhead) arranged randomly

Lacrimal sac SFTs may present as nasolacrimal duct obstruction, recurrent dacryocystitis, or as a slow-growing mass in the medial canthal region.[2-4] Complete surgical excision should be performed. Due to histological diversity, SFTs can mimic other tumors such as mesotheliomas and sarcomas. Immunohistochemistry is confirmatory test.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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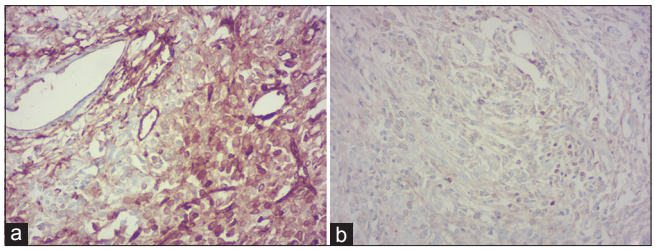

Figure 5: (a) Immunohistochemistry showing diffuse positivity for CD34. (b) Immunohistochemistry showing diffuse positivity for BCL 2

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Conflicts of interest

There are no conflicts of interest.

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