

Management of a case of post exenteration sino-orbital fistula

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Abstract

Sino-orbital fistula is uncommon but not rare complication of orbital exenteration. Here we are reporting the management of a case of sino-orbital fistula, following orbital exenteration in a case of right lower lid sebaceous gland carcinoma extending into the orbit.

Keywords : orbital exenteration, sino-orbital fistula.

Orbital exenteration is a psychologically and anatomically disfiguring procedure reserved for the treatment of potentially life-threatening malignancies or relentlessly progressive conditions unresponsive to other treatments. Complications of exenteration can be sino-orbital fistula, socket infection, cerebrospinal fluid leak, failed skin graft etc.

Case Scenario

An 82-year-old male, known hypertensive but non-diabetic, attended our OPD with the complaint of gradually progressing right lower lid mass (fig.-1) with bleeding for last two years. On examination, a multiloculated, nontender, fungating mass with surface necrosis was found in right lower lid. On examination best



Fig.-1: Right lower lid multiloculated, non-tender, fungating mass with surface necrosis

corrected visual acuity of right eye and left eye was 6/60 (RE), 6/6 (LE) and N36 and N6 respectively. Extraocular movements were full in all direction of gazes. Examination of anterior segment revealed no abnormality. Fundus examination of RE revealed secondary optic atrophy and LE was normal. MRI brain and orbit showed ill-defined irregular right lower lid mass extending into orbit. On systemic examination no lymph node was palpable. Incision biopsy from the eyelid mass revealed sebaceous gland carcinoma. Upper eyelid sparing orbital exenteration was done under GA. Intraoperative period was stormy because of very high blood pressure with maximum medication (290/150). Immediately after the surgery a sino-orbital fistula (5mm x 5mm) was noted in infero-nasal



Fig-2: Post exenteration sino-orbital fistula (arrow) in infero-nasal orbital cavity.

part of orbital cavity (fig.-2). An episode of infection led to the enlargement of that small fistula. Regular dressing was done till socket epithelization was complete. But the

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Fig-3A: Marking of the supratrochlear flap.



Fig-3B: Flap elevated with the pedicle of supratrochlear artery

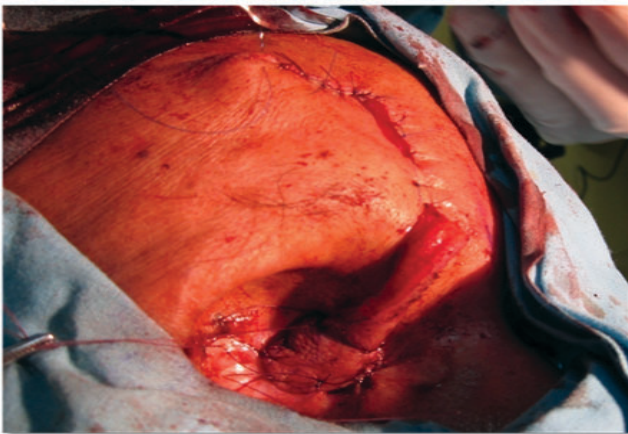


Fig-3C: Flap sutured to cover the sino-orbital fistula

fistula persisted. So, after about 2 months it was decided to close the fistula with a supratrochlear flap (fig. 3A,3B,3C). Flap division was done after four weeks (fig. 4A). After four months of conservative treatment, still two

gapings were found to be persisting superiorly and inferiorly in between the fistula margin and the flap (fig. 4B). Patient was advised spectacle mounted orbital prosthesis.

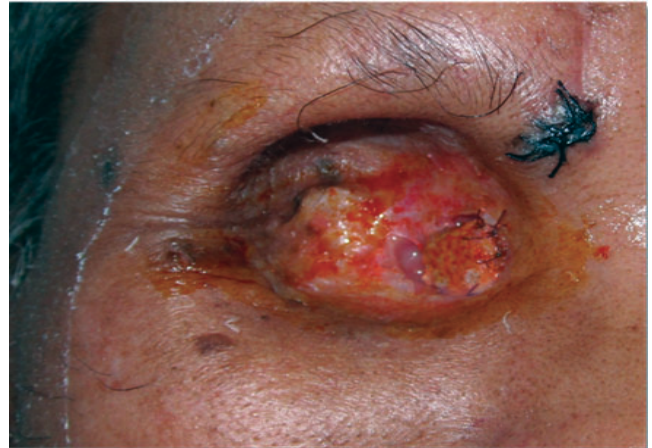


Fig-4A: Post flap division image after four weeks

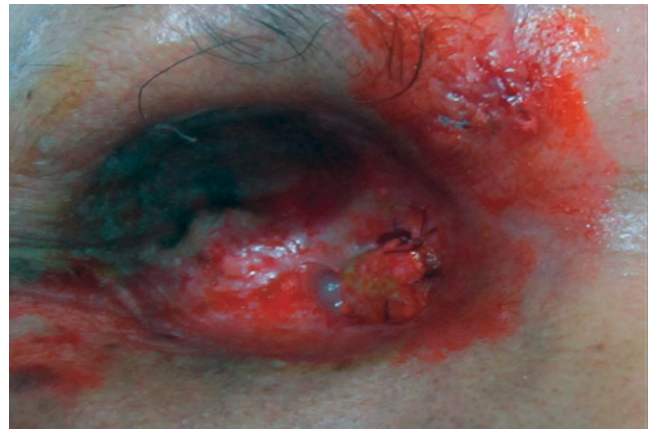


Fig-4B: Two gapings (black arrows) between fistula margin and the flap

Discussion:

In this case orbital exenteration was done for right lower lid sebaceous gland carcinoma. The medial wall of the orbit is formed by lamina papyracea of the ethmoid bone which can get easily damaged during surgical maneuver. Due to uncontrolled hypertension with maximum medication, bleeding was a major problem in the intraoperative period, repeatedly obscuring the surgical field which resulted in this undesired complication, sino-orbital fistula. Different options for the management of the fistula are temporalis muscle transposition¹, midline forehead flaps², dermal graft³, dermis fat graft⁴, split skin graft⁵, and spontaneous granulation⁶. Allowing granulation

of the defect may delay healing by up to 2–3 months. Post-operative dressing is preferred using a moist wound bed healing technique on a weekly basis until complete healing of the orbit.

Conclusion:

Sino-orbital fistulas are uncommon but not rare complications of orbital exenteration that may be predicted by several risk factors. Bothersome symptoms may necessitate treatment, which can range from conservative management to surgical repair with various grafts or flaps. Despite repair, fistulas may be difficult to eradicate.

References:

1. Reese AB, Jones IS. Exenteration of the orbit and repair by transplantation of the temporalis fascia. *Am J Ophthalmol* 1961;51:217–27.
2. Dortzbach R, Hawes M. Midline forehead flap in reconstructive procedure of the eyelids and exenterated socket. *Ophthalmic Surg* 1981;12:257–68.
3. Mauriello JA Jr, Han KH, Wolfe R. Use of autogenous split-thickness dermal graft for reconstruction of the lining of the exenterated orbit. *Am J Ophthalmol* 1985;100:465–7.
4. Shore JW, Burks R, Leone CR Jr, et al. Dermis fat graft for orbital reconstruction after subtotal exenteration. *Am J Ophthalmol* 1986;102:228–36.
5. Harting F, Koorneef L, Peeters HJF, et al. Glued fixation of split-skin graft to the bony orbit following exenteration. *Plast Reconstr Surg* 1985;76:633–5.
6. Putterman AM. Orbital exenteration with spontaneous granulation. *Arch Ophthalmology* 1986;104:139–40.

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