Sino-orbitocutaneous fistula from local (native) tonsillectomy: A case Report

Abstract

Background

Orbitocutaneous fistula is a known complication of orbital exenteration. Causes from tonsillectomy is quite uncommon. Risk factors for fistula development are sinus diseases, radiotherapy, inadvertent sinus penetration during mid-face and other related surgeries.

Case Report

MS is a ~~16 year old~~16-year-old girl who presented with swelling of the right side of face and neck of ten days duration following local tonsillectomy at home. Ocular examination findings showed lid swelling, echymosis, pus point in medial third of upper lid of right eye which gave way and formed a sinus tract with commencement of antibiotics.

Discussion

Although orbitosinocutaneous fistula is uncommon with tonsillectomy however fistulae may have developed following poorly performed procedure by a non professional who may have tampered with the sinuses. Since asepsis was not observed, there may have also been upward track of infection to the orbit.

Conclusion

Orbitosinocutaneous fistula could be a complication of poorly performed tonsillectomy.

Introduction

Sino-orbitocutaneous fistulas is a known complication of orbital exenteration and sinonasal carcinoma resection. [1]It could also be a challenging complication of

midface and orbital resection and reconstruction. [1]They could lead to functional and cosmetic problems such as malodorous discharge, pain, crusting, further wound breakdown, difficulty with nose blowing, hypernasal speech, or inability to wear an orbital prosthesis.[2]

Risk factors that may contribute to fistula formation include radiotherapy, sinus disease, intraoperative penetration into a sinus, and immunocompromise.[3]

Dead space from either native or resected sinus cavities may leave patients at risk for fistula. For instance, resection of the ethmoid sinuses and medial orbital wall allows communication of the sinonasal cavity with the skin incision especially when the nasal or medial lid skin is resected. [1]Furthermore, radiation or wound complications can produce defects predisposed to breakdown, which can lead to fistula formation.[1]

Management of fistulas varies depending on the size and location of the defect. Occasionally, small fistulas may spontaneously heal or remain minimally symptomatic, but most fistulas persist and require surgical repair.[4]

Closure of fistulas is indicated if bothersome symptoms develop. Since local tissues may be disturbed after midface resection and orbital exenteration, repair of these fistulas can be difficult, however to prevent recurrence, a minimum two-layered closure is an essential reconstructive requirement [2]

Case Report

MS is a 16 year old girl who presented with a ten day history of swelling in the right side of face and neck.This followed a local(native) tonsillectomy with subsequent in take of hot drink at home .Tonsillectomy was done following a prior three day history of cough and breathlessness.Examination findings at presentation revealed she had lost vision in the right eye.The lid had complete mechanical ptosis, echymosis, pus point in the medial third of upper eyelid and matted lashes.Other findings were redness of eye,purulent eye discharge,corneal melting and hazy media in an eye undergoing phthisis.The left eye was normal.

An initial assessment of Panophthalmitits and orbital cellulitis were made.A swab of discharge was taken for microscopy culture sensitivity (MCS) and patient was commenced on conservative management with both systemic and topical antibiotics,keeping in view the need for evisceration.She also had daily wound dressing with topical Tobramycin.

Few days later,the pus point gave way with purulent discharge leaving an eventual sinus tract. A diagnosis of Orbito-sinocutaneous fistula was made.The eye became cleaner with treatment and gradually went phthisical.Sinus closure surgery was deferred when sinus tract gradually healed by granulation tissue as seen in fig 1.Patient is being prepared for prosthesis in the right eye.

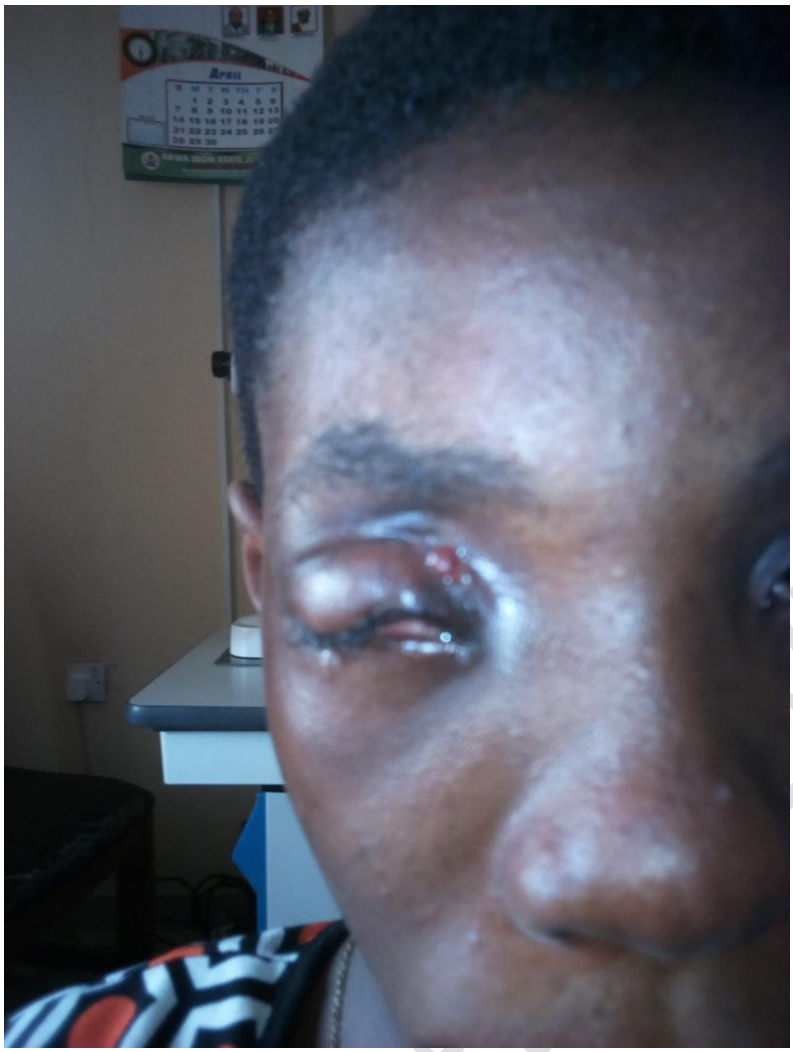

Fig 1 shows healed orbitosinocutaneous fistula

Discussion

Orbito sinucutaneous fistula is a well known complication of eviseration especially when the sinus had been tampered with in the course of surgery.Orbitosinus fistulae from tonsillectomy is rare to none however in this case ,it is possible that the sinuses were tampered with in the course of tonsillectomy bearing in mind that this procedure was carried out by a non professional who might not be acquainted with the anatomical landmarks.Sinus disease itself has been observed to be a risk factor in fistula formation.[3]Dead space from either native or resected sinus cavities may

also leave patients at risk for fistula.[1]Furthermore since asepsis was not observed in this procedure thus increasing the likelihood for upward track of infection from the sinuses to the orbit

.Vision loss could have been from raised intra-orbital pressure with compression of orbital component of optic nerve.Although patient denied use of harmful traditional eye medication which could have resulted in corneal melting and phthisis but this remains a likely cause.

There has been several reports on modalities for closure of orbitosinus fistulae but closure was suspended in this case when we observed healing with granulation tissue.This has also been recommended especially for small-sized fistula.[4]

References

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