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Subperiosteal Hematoma of orbit an interesting case report and review of literature

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Abstract:

Subperiosteal Hematoma orbit is an uncommon disorder which may occur following injury to orbit. Ofcourse there are other causes that cause this condition as well. This condition has been reported in young adults. This case report discusses a patient who developed subperiosteal hematoma following trivial injury to orbit. Since this condition had occurred following trivial injury to orbit diagnosis was not made pre operatively. It was discovered only on the table. A high index of suspicion and an accurate history is necessary to identify this condition. This case is being reported not only for its rarity but also to stress the importance of eliciting accurate history.

Introduction:

Subperiosteal hematoma can develop following blunt trauma. Only a few cases have been reported in literature. Cases reported were seen in young individuals [1]. This can cause complications if not handled properly. Roof of the orbit happens to be commonly involved.

Causes of subperiosteal hematoma include:

1. Trauma [2, 3] – Most subperiosteal hematomas are post traumatic due to mechanical disruption of small subperiosteal blood vessels. Left untreated these hematomas may also undergo suppuration leading on to abscess formation.

2. Congestion – Subperiosteal hematoma due to congestion is due to transmission of increased pressure from adjacent venous network directly to orbit venous plexus which is devoid of valves.

3. Spontaneous – True spontaneous orbital hematoma is very rare. It should be remembered that even trivial trauma to orbit can cause subperiosteal hematoma of orbit. Straining has been associated with increase in the pressure of orbital veins causing bleeding into orbit. History should be elicited to rule out trauma / straining before attempting to classify it as spontaneous hematoma of orbit. One classic example of orbital hematoma occuring due to straining is the one that occurs during labor. When a female is in labor a large amount of stress is applied to the venous system which could get transmitted to orbital venous plexus.

4. Conditions associated with systemic diseases like leukemia, sickle cell, scurvy and hemophilia can cause orbital hematoma.

5. Sinusitis – Phlebitis of sinus mucosa may extend to the veins in the periorbita causing rupture of these vessels. This in turn caused hematoma of orbit [4].

Clinical features of orbital hematoma:

1. Acute proptosis

2. Limitations of ocular movements

3. Compressive optic neuropathy

Case Report:

35 years old female patient presented to OPD with complaints of:

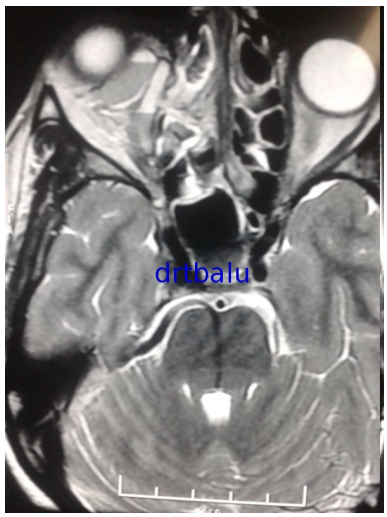
1. Swelling right eye – 2 months

2. Double vision – 2 months

3. Vision was normal

4. Medial movement of right eye ball restricted

Imaging:

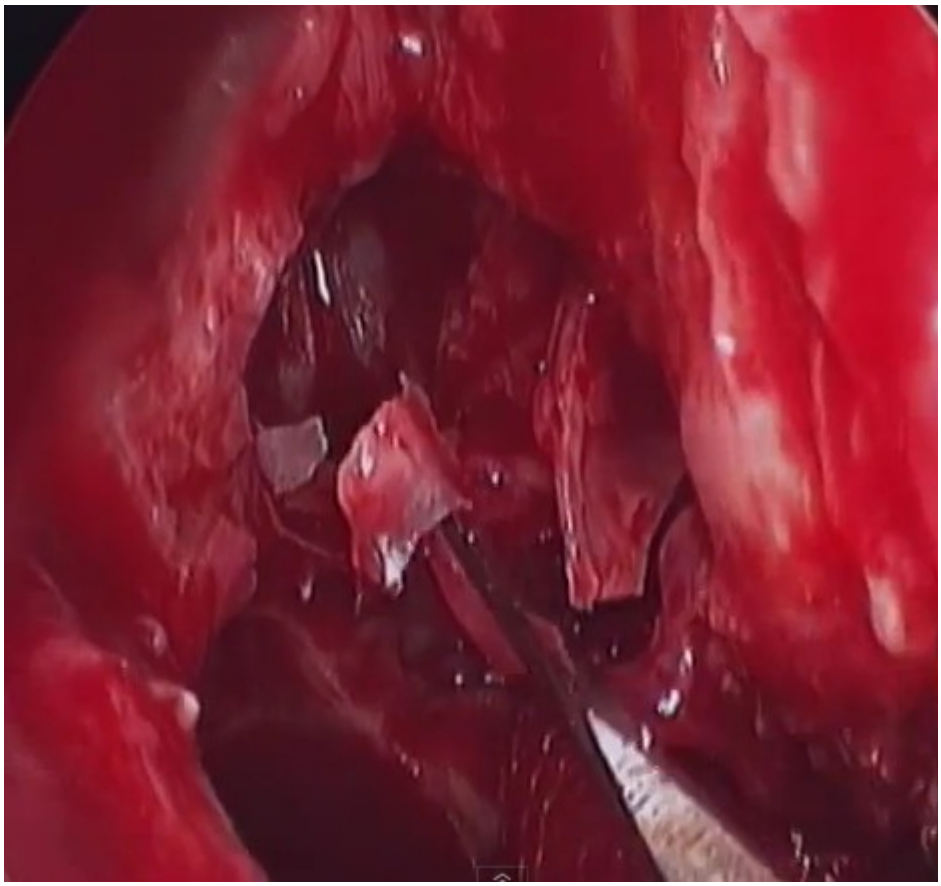


MRI scan of nose and sinuses T2 weighted showing hypointense lesion involving the medial portion of orbit

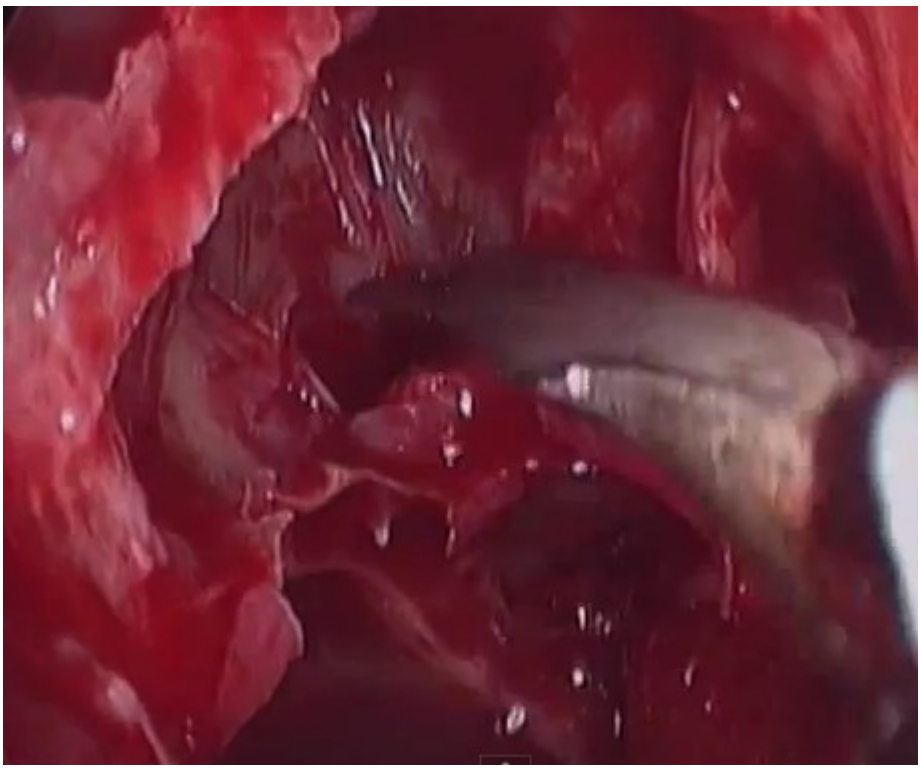
Clinical photograph of the patient

Management:

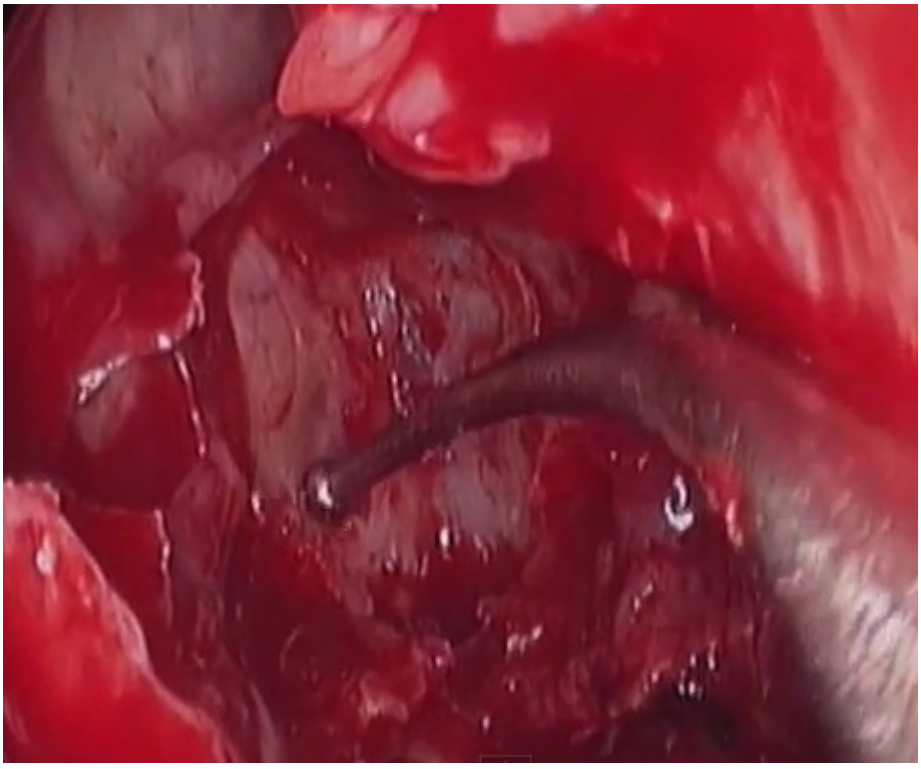
Under general anesthesia using nasal endoscope lamina papyracea was gently removed. Excess orbital fat was removed. Orbital periosteum exposed. It was incised. Medial rectus muscle was exposed. On teasing the medial rectus muscle fibers hematoma expelled spontaneously.



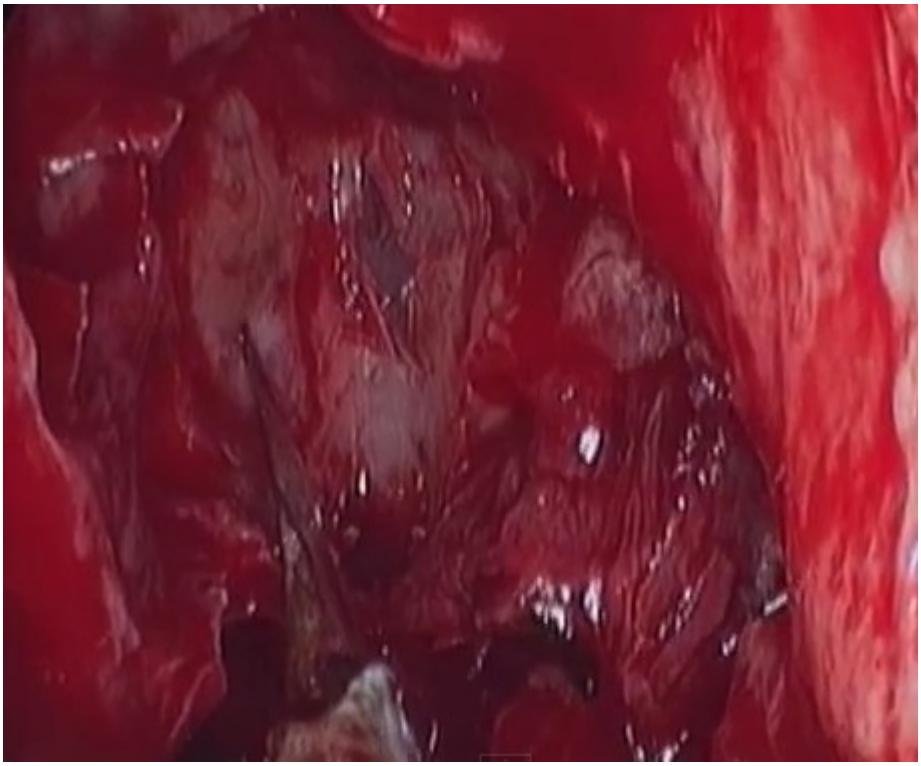
Lamina papyracea being removed



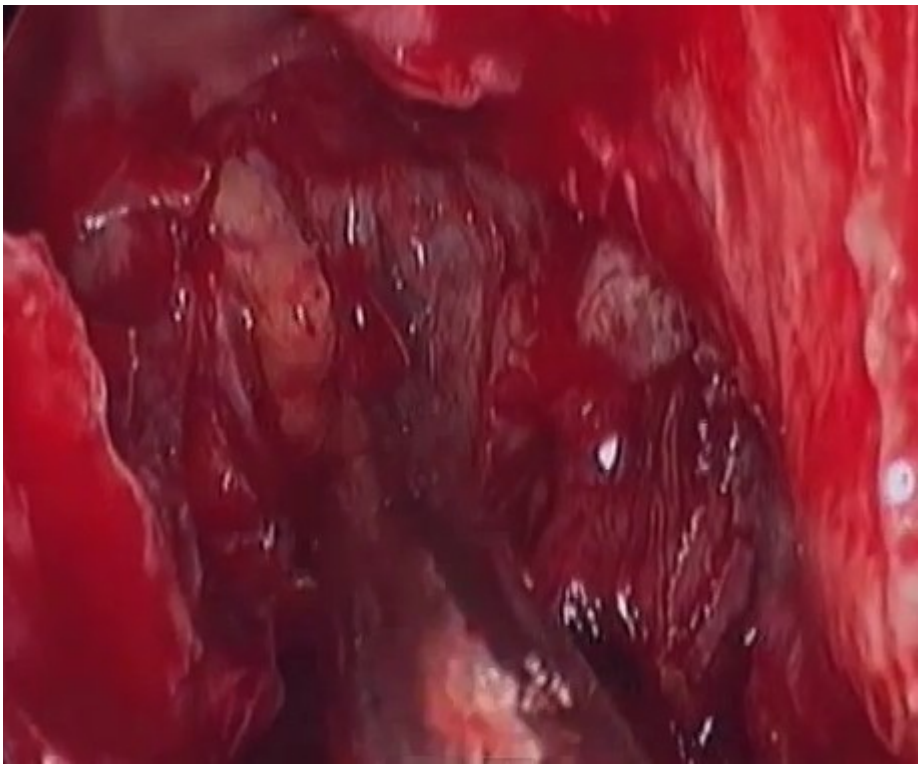
Medial wall of orbit removed exposing orbital periosteum



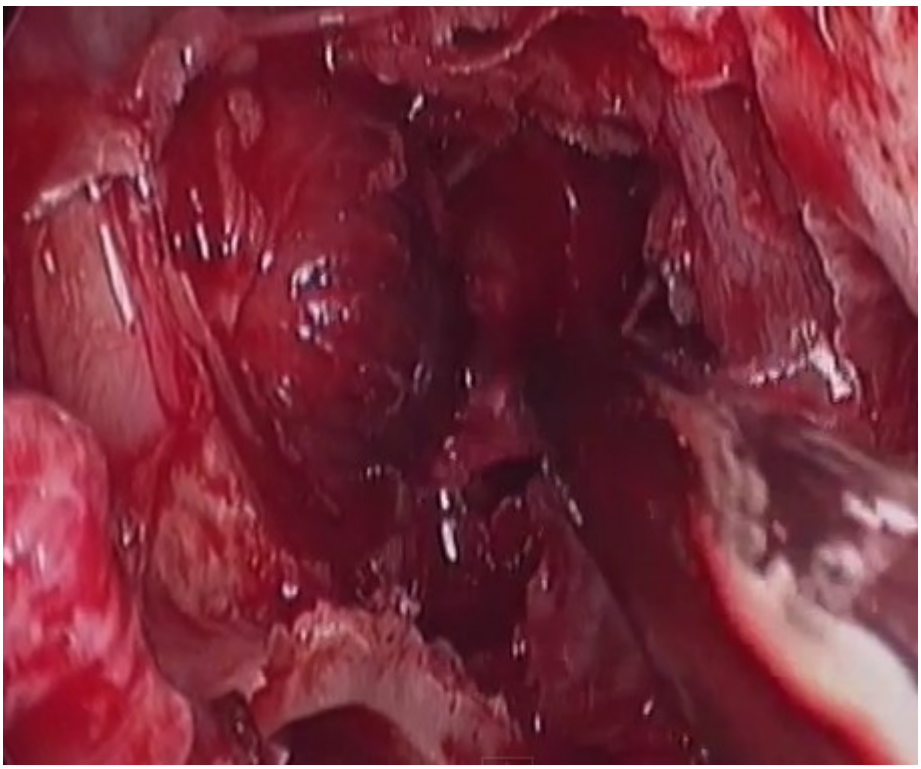
Orbital perisoteum exposed



Orbital periosteum being excised



Orbital fat seen prolapsing from periosteal incision



Hematoma being evacuated

Conclusion:

A high degree of suspicion is a must for diagnosing this problem. If caused due to trauma it is unilateral. Endoscopic orbital decompression is the treatment modality of choice. If done early it prevents further complications like blindness.

References:

1. Mueller W, and Geppert, J., 1968 Klin. MbIAugenheik, 153: 795

2. Gillum, W.N. and Anderson, RL: Reversible visual loss in subperiosteal hematoma of orbit. Ophthalmic Surg. 12:203, 1981

3. O'Neill, O.R., Delashaw , JB., and Phillips, J.P.: Subperiosteal hematoma of the orbit associated with subfrontal extradural hematoma: case report.Surg. Neurol. 42:308, 1994

4. Choi, S., Lawson, W., and Urken, M.L.: Subperiosteal orbital hematoma. An unusual complication of sinusitis. Arch. Otolaryngol. Head Neck Surg. 114: 1464, 1988