

A misleading Periorbital Hematoma.....Case Report

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Abstract

Periorbital ecchymosis or hematoma is due to extravasations or collections of blood into the periorbital skin and the subcutaneous tissues around the eyes. 'Spectacle hematoma' 'raccoon eyes' or 'panda sign' is a distinctive type of periorbital hematoma. A six year old girl brought in the casualty accompanied by her mother with complain of severe cough, left periorbital blackening, running nose, nose block and mild fever for 7 days.

Keywords: Periorbital hematoma, Spectacle hematoma, Sub-conjunctival hemorrhage.

Introduction

Periorbital ecchymosis or hematoma is due to extravasations or collections of blood into the subcutaneous tissues around the eyes. 'Spectacle hematoma' 'raccoon eyes' or 'panda sign' is a distinctive type of periorbital hematoma. Periorbital hematoma can be caused by trauma or non-traumatic medical conditions either bilateral or unilateral side of eye. This is a very interesting and rare case.

Case History

A 6-year-old girl brought in the casualty accompanied by her mother with complain of severe cough, running nose, nose block and mild fever for 7 days. The patient was on oral medication but instead condition not improved. Patient frequently blows left nostril to clear up the blockage. She has developed lower sub-conjunctival hemorrhage and periorbital hematoma of left eye, which was increasing. There was no history of trauma anywhere in the body. This case was just about to be informed to police for suspicion of child abuse.

On examination, there was no tenderness and signs of trauma anywhere.

Ophthalmologist opinion: normal eyesight and no local ocular pathology.

Otorhinolaryngologist opinion: enlarged turbinate blocking left nostril.

Radiological investigation: chest x-ray is normal and x-ray PNS shows enlarged turbinate of left nostril.

Discussion

Periorbital hematoma caused by an increase in the orbital venous pressure either due to intracranial or extracranial pathologies. It also includes local pathology of orbital vasculature and coagulopathies.

Idiopathic intracranial hypertension,⁽¹⁾ migraine headache,^(2,3) cavernous sinus thrombosis,⁽⁴⁾ superior sagittal sinus thrombosis,⁽⁵⁾ dural sinus thrombosis,⁽⁶⁾ metastatic neuroblastoma involving base of the skull^(7,8) etc. are been reported associated with intracranial pathologies. Severe vomiting,⁽⁹⁾ severe cough in bronchial asthma,⁽¹⁰⁾ vigorous sneezing⁽¹¹⁾ etc. are extra-

cranial causes leads to hematoma by producing Valsalva maneuver and an increase in venous pressure. Local illness like amyloidosis^(12,13) which, cause fragile vessels; giant cell arteritis,⁽¹⁴⁾ Kaposi sarcoma⁽¹⁵⁾ can lead to periorbital hematoma. A case also been reported with severe adenovirus infection⁽¹⁶⁾ and dengue fever.⁽¹⁷⁾ Traumatic causes includes basal skull fracture (raccoon eyes sign);^(18,19) endoscopic sinus surgery;⁽²⁰⁾ periorbital trauma^(21,22) with direct injuries to periorbital vessels and thoracic trauma.⁽²³⁾

After clinical and radiological investigation, severe coughing & blowing of nose by closing nostril of right side have been implicated to be the cause of one side periorbital hematoma in present case. Unilateral periorbital hematoma due to medical cause is very rare. The medical examiner should not be quick of giving the opinion on such cases. It might leads to legal trouble like defamation.



Pic: Left periorbital hematoma & Sub-conjunctival hemorrhage

References

1. McCasland B, Mendicino ME, Newman NJ. Subretinal haemorrhage in idiopathic intracranial hypertension. *Br J Ophthalmol* 1999;83:883-4.
2. Saper JR. Migraine, migraine variants and related headache. *Otolaryngol Clin North Am* 1989;22:1115-30.

3. DeBroff BM, Spierings EL. Migraine associated with periorbital ecchymosis. *Headache* 1990;30:260–3.
4. Clifford Jones RE, Ellis CJK, Stevens JM. Cavernous sinus thrombosis. *Neurol Neurosurg Psychiatry* 1982;5:1092–7.
5. Ray PM, Gras E. Cerebral venous thrombosis. *N Engl J Med* 2003;349:1730.
6. Hadjikoutis S, Carroll C, Plant GT. Raised intracranial pressure presenting with spontaneous periorbital bruising. *Neurol Neurosurg Psychiatry* 2004;75:1192–3.
7. Moran DE, Donoghue V. Periorbital ecchymosis (raccoon eyes) as the presenting feature of neuroblastoma. *Paediatr Radiol* 2010;40:1710.
8. Timmerman R. Raccoon eyes and neuroblastoma. *N Engl J Med* 2003;349:e4.
9. Al-Sardar H. *BMJ Case Rep* 2014. doi:10.1136/bcr-2013-202495.
10. Reid JM, Williams D. Periorbital ecchymosis following an exacerbation of asthma. *R Coll Physicians Edinb* 2013;43:35.
11. Maramattom BV. Raccoon eyes following vigorous sneezing. *Neurocrit Care* 2006;4:1512.
12. Weingarten TN, Hall BA, Richardson BF, et al. Periorbital ecchymosis during general anaesthesia in a patient with primary amyloidosis: a harbinger for bleeding? *Anesth Analg* 2007;105:1561.
13. Bernardini FP. Periocular and orbital amyloidosis. *Ophthalmology* 2007;114:1232.
14. Fernandez S, Adhiyaman V. Giant cell arteritis presenting as periorbital ecchymosis. *Age Ageing* 2005;34:856.
15. Schwartz RA, Spicer MS, Thomas T, et al. Ecchymotic Kaposi sarcoma. *Cutis* 1995;56:1046.
16. Chuang YY, Chiu CH, Wong KS, et al. Severe adenovirus infection in children. *Microbiol Immunol Infect* 2003;36:3740.
17. Kumar V, Ghosh B, Raina UK, Goel N. Bilateral periorbital ecchymosis in a case with dengue fever. *Indian Journal of Ophthalmology* 2009;57(3):242.
18. Duhaime AC, Christian CW, Rorke LB. An accidental head injury in infants: the shaken baby syndrome. *N Engl J Med* 1998;338:1822–9.
19. McPheeters RA, White S, Winter A. Raccoon eyes. *West J Emerg Med* 2010;11:97.
20. Arvind KA, David M, Al-Jasim H. Late periorbital haemorrhage following functional endoscopic sinus surgery. *BMC Ear, Nose Throat Disord* 2006;6:11.
21. Kandagon T, Aydar L, Yalciner B. Bilateral black eyes resulting from plucking of eyebrows. *Swiss Med Wkly* 2005;135:160.
22. Ghazi-Nouri SM, Vote BJ, Sullivan PM. Periorbital ecchymosis as a sign of perforating injury to the globe. *Clin Experiment Ophthalmol* 2005;33:194–6.
23. Deakin CD. Bilateral periorbital ecchymosis (raccoon eyes) following thoracic crush injuries. *Trauma* 1995;38:8167.