Orbital haemorrhage induced by labour

Orna Geyer, Daniel Wasserman, Leonard Rothkoff, Moshe Lazar

Abstract

A case of acute orbital haemorrhage induced by labour is reported in a woman giving birth for the eighth time. The diagnosis was confirmed by computed tomography. The haemorrhage subsided spontaneously within three weeks. The mechanism of orbital haemorrhage following certain kinds of strain is discussed.

Orbital haemorrhage (OH) is usually associated with factors such as trauma and venous anomalies,¹ less frequently with strain.² Induced by labour it has been reported only once.³ We present an additional case confirmed by computed tomography.

Case report

A 38-year-old woman was referred to us by her gynecologist because of proptosis of the left eye which was noticed immediately after labour. The patient was otherwise well. This was the patient's eighth labour, and she gave a history of exophthalmos, which subsided spontaneously within three weeks, following the fifth and sixth deliveries.

Her corrected visual acuity was 6/6 in both eyes. A general ocular examination of the left eye showed slight ptosis of the eyelids, conjunctival chemosis, and an irreducible proptosis of 4 mm (by Hertel measurement) in comparison with the right eye. Limitation of adduction and abduction was also noted.

A computed tomography (CT) scan (Fig 1) revealed a mass located in the lateral part of the left orbit that pushed the eyeball forward. The image of the lesion was more attenuated than that of the surrounding soft tissue and was therefore interpreted as haemorrhage. Neither destruction of the bony orbit nor venous anomaly was evident on the CT.

Other investigations, including full blood examination and clotting function tests, gave normal results.

Follow-up of the patient showed complete regression of the proptosis, ptosis, and ecchymosis, as well as a return of ocular movements to normal within three weeks. A CT scan performed one month later was normal (Fig 2).

Discussion

Acute OH is a rare occurrence which has been associated with strain. Law² reported it caused by moderate physical exertion in two healthy males. Vision was not affected, but there was a slight proptosis, diplopia, and limitation of ocular movements. The condition subsided completely without intervention within two to three weeks. Recently Katz and Carmody³ reported a case of mild subperiosteal haematoma induced by the Valsalva manoeuvre. Here again the haemorrhage resolved spontaneously within three weeks. In this case, as in the previous two cases, the patient was a young, 23-year-old sportsman (weight lifter).

Labour has been reported only once as being associated with OH.¹ In our case it was certainly the cause of the OH, since it appeared three times during labour in the same woman and no other underlying condition was detected, though the possibility of a small haemangioma or lymphangioma not visualised by computed tomography remains. The cause of OH following a strain is probably increased intra-abdominal and intrathoracic pressure. Since the orbital vein contains no valves, the pressure is transmitted freely to the orbital blood vessels causing orbital congestion and finally rupture of the vessel walls and haemorrhage. As long as there is no visual loss requiring surgical drainage these patients can be safely observed for expected resorption of the haemorrhage within a few weeks.

1 Krohel GB, Wright JE. Orbital hemorrhage. *Am J Ophthalmol* 1979; 88: 254-8.

2 Law FW. Spontaneous orbital haemorrhage. *Br J Ophthalmol* 1971; 55: 556-8.

3 Katz B, Carmody R. Subperiosteal orbital hematoma induced by the Valsalva maneuver. *Am J Ophthalmol* 1985; 100: 617-8.

Department of
Ophthalmology, Ichilov
Hospital, Tel Aviv
Medical Center, Tel Aviv
University Sackler
School of Medicine,
Israel

O Geyer
D Wasserman
L Rothkoff
M Lazar

Correspondence to: Orna
Geyer, MD, Department of
Ophthalmology, Ichilov
Hospital, 6 Weizman Street,
Tel Aviv 64239, Israel.

Accepted for publication
9 November 1989

Figure 1: Computed tomographic scan of the orbit. A mass interpreted as haemorrhage is seen in the left retrobulbar space.

Figure 2: Computed tomographic scan of the orbit one month later. There is complete resolution of the lesion.