Traumatic central serous chorioretinopathy in the fellow eye

Sir,

Traumatic central serous chorioretinopathy (CSC) is very rare, and there is a few previous report of traumatic CSC worldwide.[1,2] We recently experienced a case of CSC after blunt trauma in the fellow eye, thus, herein report the case.

A 39-year-old male presented with ocular pain in his right eye following blunt trauma by a plastic ball hitting his eye 1-day earlier. At initial presentation, his best-corrected visual acuities (BCVA) was 20/25 in the right eye and 20/20 in the left eye. The intraocular pressure was 19 mmHg in both eyes. Slit-lamp examination revealed no red blood cells in the anterior chamber. Fundus examination revealed no abnormality in the right eye. An orbital computed tomography scan showed a blowout fracture of the right orbital floor with a slight dislocation of the orbital contents [Fig. 1]. Optical coherence tomography (OCT) scans were performed in both eyes, which were normal, without any signs of retinal detachment. The patient was observed closely with consecutive fundus examination. Two weeks later, he experienced visual disturbance in the left eye. BCVA was 20/50 in the left eye with metamorphopsia while in right eye it was 20/20. On fundus examination, a serous macular detachment was noted in the left eye [Fig. 2a]. Fluorescein angiography showed a focal retinal pigment epithelial (RPE) leakage [Fig. 2b]. OCT performed on the same day showed elevation of the sensory retina in the macula [Fig. 2c]. One month after the trauma in the right eye, BCVA of left eye returned to 20/20 and the neurosensory retinal detachment resolved on OCT examination.

CSC is a multifactorial disease of unknown etiology and has been associated with type A personality, emotional stress, pregnancy, hypertension, psychopharmacological medication, and increased levels of corticosteroids.[3] There has been a suggestion that people with type A personality, who gets intensed and overwhelmed easily by stressful situations, over stimulates

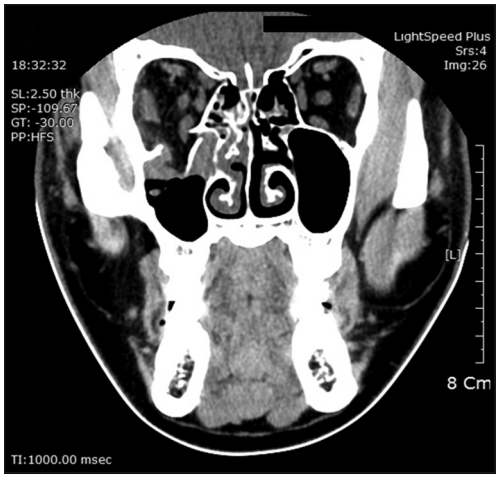

Figure 1: Orbital computed tomography showing linear fracture of the inferior orbital wall with a slight dislocation of the orbital contents

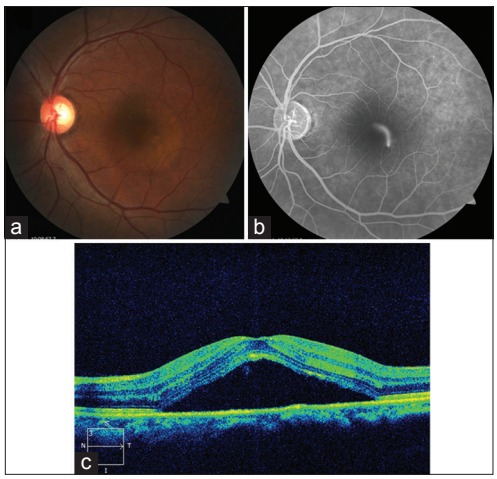

Figure 2: (a) Fundus photograph reveals a serous elevation of the retina in the macular area. (b) Fluorescein angiography shows a "smokestack" pattern leakage. (c) Optical coherence tomography shows a serous macular detachment

sympathoadrenomeullary system, consequently overproduce catecholamine, and increase the release of cortisol resulting in CSC.[4] Our case shows no immediate ophthalmologic signs in the affected eye from the first visit, but presented CSC in the unaffected eye after few days after trauma; however, there still is a possibility that CSC has occurred regardless of trauma. During the first visit interview, many factors have been considered to rule out other factors that may have caused CSC, i.e. any stressful situation, previous diagnosis of CSC, and use of steroids (oral or any other route); however, none of these factors seemed to cause CSC. Therefore, it may conclude that the trauma in the right eye caused an increase in endogenous catecholamines, affecting the opposite eye. This is the first case of blunt trauma related CSC occurring in the unaffected eye in Korea, and it is important to notice that it took less than 1 month to recover, whereas CSC, in general, is known with its slow recovery.

In conclusion, although there are no immediate signs of damage in the affected eye after blunt trauma, a careful examination of both eyes within few days followed by regular follow-up is required as CSC may occur in the opposite, unaffected eye.

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Conflicts of interest

There are no conflicts of interest.

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