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Clinical image: Contusive ocular trauma

*Corresponding Author: Lucrèce Joanelle Vydalie Eriga

Email: eriga760@gmail.com

Lucrèce Joanelle Vydalie Eriga*; Arnaud Hugues Yempabou Yonli; Fadhloullahi Khidrou Sambou Oumarou; Keith Adjatin Rolyf Awore; Ricardo Mendes; Soundouss Sebbata; Yassine Mouzari; Abdelbarre Oubaaz Department of Ophthalmology, Hôpital Militaire D'instruction Mohammed V- Rabat, Morocco.

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Introduction

Ocular trauma is a frequent reason for consultation. A distinction is made between perforating and contusive trauma. They constitute an ophthalmological emergency requiring rapid management to preserve the visual prognosis. We report the case of a patient who had some sequelae of ocular trauma.

Description

This was a 30-year-old female patient with a history of contusive ocular trauma to the left eye 6 years ago, who consulted for incidental leukocoria with no notion of ocular redness or pain. On clinical examination, visual acuity was limited to doubtful light perception; examination of the adnexa showed good palpebral statics and dynamics, normal coloured conjunctiva (Figure 1), preserved ocular motility, exptropia; on biomicroscopy (Figure 2). The cornea was clear with no corneal cleft, and the anterior chamber was optically empty and deep, the iris showed good staining and trophicity, no sphincter rupture or iris dialysis, the lens was cataractous and subluxated inferotemporally (Figure 3), ocular tonus was 14 mmHg and a retinal detachment in the fundus (Figure 4) showed retinal detachment and remodelling, with multiple septations. Examination of the adelphic eye revealed visual acuity of 10/10, with ophthalmological examination being normal. B-mode ultrasonography of the eye (Figure 5) showed a detached, fixed, compartmentalized retina, displaced anteriorly just behind the lens, which was subluxated, and the presence of echoes posterior to the retina in connection with a sub-retinal hemorrhage.

Discussion

Ocular contusion leads successively to anteroposterior compression of the globe, equatorial distension, recoil of the anterior elements, a sudden and significant rise in intraocular pressure, an increase in tension in the areas of discontinuity and at the points of attachment (base of the vitreous, zonule, papilla); in a second phase, the return of the shockwave from the back to the front pushes the vitreous and the iridocrystalline diaphragm back, which may lead to the rupture of the globe. The displacement of the vitreous can lead to dehiscence of the retina which may lead to retinal detachment immediately or at a distance [1,2]. The ophthalmological examination of a patient with trauma to the globe must be complete, and repeated if



Figure 1: Good palpebral statics, white eye.



Figure 2: Transparent cornea, optically empty anterior chamber, well-colored iris, subluxated crystalline lens inferiorly, retinal detachment posteriorly.



Figure 3: Looking down to show the cataractous lens.



Figure 4: Looking up: showing the detached retina.



Figure 5: B-mode ultrasound showing total retinal detachment with multiple septa, inferior subluxation of the lens, choroidal thickening.

necessary so as not to miss a lesion that may worsen over time, as in our patient's case. Early treatment is essential to improve prognosis and reduce complications that can lead to irreversible blindness [2].

Conclusion

Ocular trauma is an ophthalmological emergency that threatens the functional prognosis of the eye. Treatment is complex and depends on the type of injury; however, it must be rapid and appropriate in order to preserve the patient's visual function.

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