



OCIMUM

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Case Report



A New Case for Foreign Orbit Ballistic Body

Summary

Introduction: We report an unusual case of an orbital foreign body by automatic firearm.

Observation: A 70-year-old female presented for evaluation of a chronic foreign body sensation. Examination showed difficulty in right eye abduction without any obvious orbital deformity. Palpation revealed the presence of an orbital foreign body. The orbital X-ray confirmed the presence of the radiopaque foreign body. Surgical extraction by external route was done.

Discussion: Foreign bodies in the orbit are relatively rare. Non-dispersible firearm accidents are less dangerous than those caused by dispersible firearms. On the other hand, accidents involving shotguns are more described with their procession of corner-conjunctiva-palpebral and orbital lesions.

Conclusion: Ballistic trauma is severe and unpredictable.

Keywords

Ballistic Trauma; Intraorbital

Introduction

The severity of ballistic eye trauma resides in severe oculo-orbital damage and the sequels they cause may compromise the visual or even anatomical prognosis of the eyeball. We report an exceptional case of an orbital foreign body by automatic firearm.

Observation

This is a 70-year-old patient of Guinean origin, without particular antecedents, who was brought in consultation by her children in April 2014. She declared for a long time to his entourage to have received in its right orbit a foreign body of unknown nature while she was in her room sitting on her bed. She complained of a foreign body sensation evolving since 4 and a half years, following the riots of Conakry in September 2009, a limitation of ocular motility in external gaze and a periorbital pain of dullness. At the examination, she presented to the inspection, a limitation of abduction, an absence of an obvious point of impact, an absence of orbital deformity and a slightly deviated eye within. On palpation, we noticed the presence of a foreign body hard, well limited, embedded between the outer orbital rim and the eye. The orbital frame was intact and the eyeball normal. The simple radiography of orbits with frontal and profile images showed the presence of a radiopaque foreign body resembling an automatic pistol bullet lodged in the orbit without associated bone lesions

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(cliché 1 and 2). The treatment consisted of a surgical extraction made without difficulty, under local anesthesia, externally laterally orbital. The operative follow-up was

simple and the patient was released without complications (Figures 1,2). The removed ball returned to an AK 47 ball (Figures 3,4).



Cliché 1: Ballistic foreign body (front view).



Cliché 2: Ballistic foreign body (Profile view).



Figure 1: Start of ball extraction.



Figure 2: End of ball extraction.



Figure 3: Ball taken.



Figure 4: Measuring the ball.

Discussion

Foreign bodies in the orbit are relatively rare. It is estimated, however, that one in six trauma to the body would involve a foreign body [1]. Clinical pictures are extremely variable function of both the foreign body itself: its size, its nature, its place of penetration, the direction of the shock, the age of the accident, the number of foreign bodies, the speed of penetration, the hot or cold character of the foreign body but also according to the attacks associated at the same time cranial, ocular, sinus or facial [1]. Schematically two great situations very different meet: emergency in front of craniofacial trauma with suspicion of an intra-orbital foreign body; in this case the vital problems and the possibility of an intracranial lesion dominate the picture. The second circumstance is at a distance in front of an unknown foreign body which will manifest itself by inflammatory or infectious phenomena and whose diagnosis can sometimes be difficult [1]. In our case, the diagnosis is made at a distance from the trauma. The nature of foreign bodies is extremely variable: it can be metallic foreign bodies that can be small and numerous like for example shot pellets or when metal particles explode with facial screening or that can be unique sometimes bulky like knives, arrows, steel rods. In the case of a metallic foreign body, ocular lesions are frequently associated as well as cranial lesions; however, the risk of infection is relatively moderate. There is a toxic risk when it comes to copper or metal containing copper such as brass etc. These metallic foreign bodies are found during hunting accidents, fire accidents, in certain work accidents; they can also be seen after surgery: such as the case of a broken retro bulbar needle during cataract surgery [2]. Wounds by firearms are less frequent but more serious than those with knives. Non-dispersible firearm accidents are less dangerous than those caused by dispersible firearms. They are followed

in half of the cases by aggression and in one-third of cases by autolysis [3]. In France, they account for 5 to 13% of trauma. The ratio of firearms to firearms varies by country. In France, this ratio varies according to the authors from 3 out of 2 to 6 out of 1; in the United States, the ratio is reversed 2 out of 1, in North Carolina it is 9 out of 1 [3,4]. Young men are more concerned (40 years) [3,4]. Orbital wounds with firearms are a diagnostic and therapeutic emergency. Their care is multidisciplinary. CT, fundamental imaging, detects the projectile of the firearm, specifies its seat and makes it possible to make the assessment lesions [5]. They are rare outside wartime. Their functional prognosis is often serious because they can cause orbital and periorbital soft tissue lesions, orbital apex and/or skull base injury with comminuted fractures and encephalic lesions. CT allows to locate the seat of the metallic foreign body and to assess the orbital, periorbital and bone lesions [5]. Lesions to be systematically sought are: cerebral (hematoma, pneumocephaly); ocular (intraocular foreign body, transfixing wound); orbital (extraocular foreign body, pneumonitis, hematoma, muscle incarceration); Orbital bone framework (fracture of the orbit walls, fracture of the optic canal and fracture of the associated skull base) [5]. The originality of our case is related to the age of the patient (70 years), the duration of evolution of the trauma without inflammatory and infectious consequences, the diagnosis is made by simple radiography without the use of CT, the nature of the foreign body (non-dispersible gun bullet) and the absence of orbito-ocular lesions. In the literature, shotgun accidents are more described with its corneo-conjunctivo-palpebral and orbital lesions [3].

Conclusion

Ballistic traumas remain serious and unpredictable traumas. Non-dispersible firearm accidents are less dangerous.

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