CASE REPORT

An uncommonly serious case of an uncommon sport injury

A Abedin, H-C Chen


Background: A 55 year old man sustained a severe ocular injury when hit by a cricket ball even though he was wearing a helmet.

Methods: A suprachoroidal haemorrhage was drained and dense intravitreal blood was removed. An inferior buckle was applied with the use of intraocular gas. A macular haemorrhage resolved slowly.

Results: Despite several surgical procedures over 1.5 years, the final visual acuity of the patient was only 6/60 because of a dense macular scar.

Conclusions: Helmets worn as protection when playing cricket need to be designed better and be of better material. Eye protection should be worn at all levels of play.

Although his retina was attached, he had extensive retinal dialysis and a small self-sealed globe rupture. There was a large macular scar possibly from an organised subretinal haemorrhage. An inferior buckle was applied with use of intraocular gas. His vision improved to 6/24 with pinhole postoperatively, with slow resolution of the macular haemorrhage. However, an increasing posterior subcapsular cataract was responsible for vision worsening to 6/60 leading to cataract extraction with implantation of an intraocular lens. His final visual acuity was 6/60 because of his dense macular scar.

Severe ocular injury from sport is uncommon. Such an injury resulting from impact by a cricket ball is even more uncommon. We report the case of a patient with severe choroidal and intravitreal haemorrhage, requiring drainage of suprachoroidal blood followed by pars plana vitrectomy. The patient also had a small, self-sealed globe rupture without extrusion of ocular contents and without an orbital fracture. The last is a rare occurrence in the absence of an orbital margin fracture.

CASE REPORT

A 55 year old man was referred to eye casualty from accident and emergency (A&E) with a painful, red right eye following a cricket ball injury sustained a few hours earlier in a county league game. He had a large curvilinear laceration extending down the right temple which had been repaired in A&E. He had hand movement vision and a moderate right relative afferent pupillary defect (RAPD). The orbital margins were intact and there was extensive lid oedema with ecchymoses as well as chemosis, causing some restriction of ocular movement (fig 1A). The injury had occurred although the subject had been wearing a cricket helmet. The helmet was dented badly on the right side of the face bars at the area of impact (fig 1B). Further examination revealed the cornea to be unaffected but the anterior chamber to be very deep, with an 0.8 mm hyphaema and a reacting dilated pupil; the deep anterior chamber was suggestive of an ocular perforation although there was no other sign to suggest this. The lens was intact but there was a dense vitreous haemorrhage. The intraocular pressure was normal. The ultrasonogram (USG) was indicative of choroidal detachment. The patient was admitted for bed rest with antibiotic cover and oral Diamox.

A computed tomography scan showed no orbital fracture. Subsequently, the suprachoroidal haemorrhage was drained. At review a week later, the patient had persistent right RAPD and still had only hand movement vision, with a persisting dense intragel haemorrhage. USG showed a small pocket of residual suprachoroidal blood.

The patient was admitted for right pars plana vitrectomy 3 weeks later. Dense intravitreal blood was removed.

Figure 1 (A) Photograph showing the immediate aftermath of the injury; there is a large repaired laceration on the right temple and severe lid oedema and bruising. (B) The helmet worn by the patient when the injury was sustained, showing a dent on its side at the point of impact of the ball. (Photograph reproduced with consent)

Abbreviations: RAPD, relative afferent pupillary defect; USG, ultrasonogram
COMMENTARY

This case shows the catastrophic and irreversible nature of missile related eye injury to a cricket batsman. It is ironic that he may have believed that his eyes were adequately protected. Pashby has clearly demonstrated that severe eye injury in ice hockey is preventable with adequate eye protection. This author’s call for improvements to the eye protection capabilities of cricket helmets must be heeded. However, the implementation of better eye protection may meet resistance within the cricket community. Any perceived minor impairment to vision (that is, by adding a plexiglass shield) will spark a debate as has occurred in ice hockey. Yet even one blinded eye is too many.

J D Carson
Sunnybrook and Women’s College, Health Sciences Center, SportMed North, 255 Main Street, Unionville, Ontario, Canada L3R 2H3; james.carson@utoronto.ca
An uncommonly serious case of an uncommon sport injury

A Abedin and H-C Chen

doi: 10.1136/bjsm.2004.013524

Updated information and services can be found at:
http://bjsm.bmj.com/content/39/8/e33

These include:

References
This article cites 6 articles, 1 of which you can access for free at:
http://bjsm.bmj.com/content/39/8/e33#BIBL

Email alerting service
Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

Notes

To request permissions go to:
http://group.bmj.com/group/rights-licensing/permissions

To order reprints go to:
http://journals.bmj.com/cgi/reprintform

To subscribe to BMJ go to:
http://group.bmj.com/subscribe/