

Unilateral blindness in a-33-year old man following assault by a roaming mentally ill man

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Introduction

Mental impairment is a state of arrested or incomplete development of mind, which includes significant impairment of intelligence and social functioning and is associated with abnormally aggressive or seriously irresponsible conduct.(1) Mental illness is linked with violence and violent mentally ill (MI) persons are known to have rates of repeated aggression somewhere between the general population and a criminal cohort.(1,2) Mental illness associated with violence may include psychotic disorders, affective disorders, Cluster B personality disorders, conduct and oppositional defiant disorders, delirium and dementia, dissociative and posttraumatic stress disorders, intermittent explosive disorder, sexual sadism, and premenstrual dysphonic disorder.(3) Mentally ill persons occasionally attack people inflicting bodily injuries. In African communities, a street roaming MI person is not uncommon and of concern in view of its potential danger.

Nevertheless, the rate of violence against innocent people by MI can be reduced by appropriate management including environmental control, pharmacotherapy and psychotherapy.(4) For instance, environmental controls such as alertness to warning signs preceding violence among other agitation, combative posturing and appropriate responses including being calm, speaking soothing words, patient's attention distraction and offering of food/drinks aids in containing violence. Pharmacological agents in specific dosages have been found useful in containing violence in specific mental disorders: haloperidol and fluphenazine with or without lorazepam in acute aggression; carbamazepine in brain-injured patients; clozapine in psychosis; lithium in mentally retarded and bipolar disorder; valproate in organic

Abstract

A previously normal sighted 33 year old man who developed blindness, right eye (RE) following assault by a mentally ill (MI) man. The RE findings were conjunctiva laceration, total hyphema and visual acuity (VA), perception of light (PL). The visual outcome was counting finger (CF) despite intervention including conjunctiva repair, anterior chamber wash out and topical eye medications. Untreated and roaming MI can cause avoidable blindness. The public should be on the guard during encounters with the MI. Since MI may be unaware and be exonerated of their life threatening actions we advocate for free medical rehabilitation to enhance their quality of life and protect the public.

Keywords: Avoidable blindness, blunt ocular trauma, hyphema, mental challenge, mental illness

syndromes, dementia, mental retardation, and bipolar disorder and propranolol in traumatic brain injury while nadolol combined with other psychotropics, can curtail aggression and hostility in psychosis. Psychotherapy in form of counter transference, behavioral techniques,

social skills training, cognitive approaches, group therapy are useful in controlling violence in MI.(4)

Globally, ocular trauma is a significant cause of unilateral blindness and the precipitating agents well documented.(5,6)

However we are not aware of a report on unilateral blindness due to blunt eye injury inflicted by MI. We report a case of unilateral blindness in a 33 year old man following assault by a street roaming MI man.

Case Report

A previously normal sighted 33-year-old long distance truck driver, who presented in an eye clinic of a tertiary hospital on account of RE pain and poor vision all of 4 hours duration. He was allegedly assaulted with a stick by a known street roaming mentally ill (MI) man. There was associated visual loss, redness, tearing, photophobia and flashes of light. He was rushed to a nearby General hospital from where he was referred to our hospital. Except for the painful distress, the patient's general clinical condition was essentially normal. The eye examination showed RE and LE visual acuity, PL and 6/6 respectively. The LE was essentially normal. The RE had remarkable findings including periorbital edema, mechanical ptosis, subconjunctival haemorrhage and total hyphaema. Others were 1.6 mm conjunctival laceration around 12 o clock and about 3 mm posterior to the limbus (Figure 1). The intraocular pressure (IOP) was determined after examination under general anaesthesia (EUA) had confirmed no open globe injury and was 26 mmHg, RE and 16 mmHg, LE. The patient subsequently had conjunctiva repair and anterior chamber washout about 2 hours after presentation. In addition, the RE had guttae atropine 1% 12 hourly, dexamethasone 6 hourly, ofloxacin 6 hourly, timolol 12 hourly and tab diamox 250 mg 12 hourly. The haemoglobin genotype test was not remarkable. The patient was discharged a week after and with RE visual acuity of counting finger (CF). The RE findings, a week after discharge included resolved hyphema (Figure 2), ocular ultrasound confirmed vitreous haemorrhage (Figure 3) and IOP had reduced to 21 mmHg.



Figure 1: Traumatized right eye at presentation, note conjunctival laceration and total hyphema



Figure 2: Resolved hyphema right eye, a week after hospital discharge

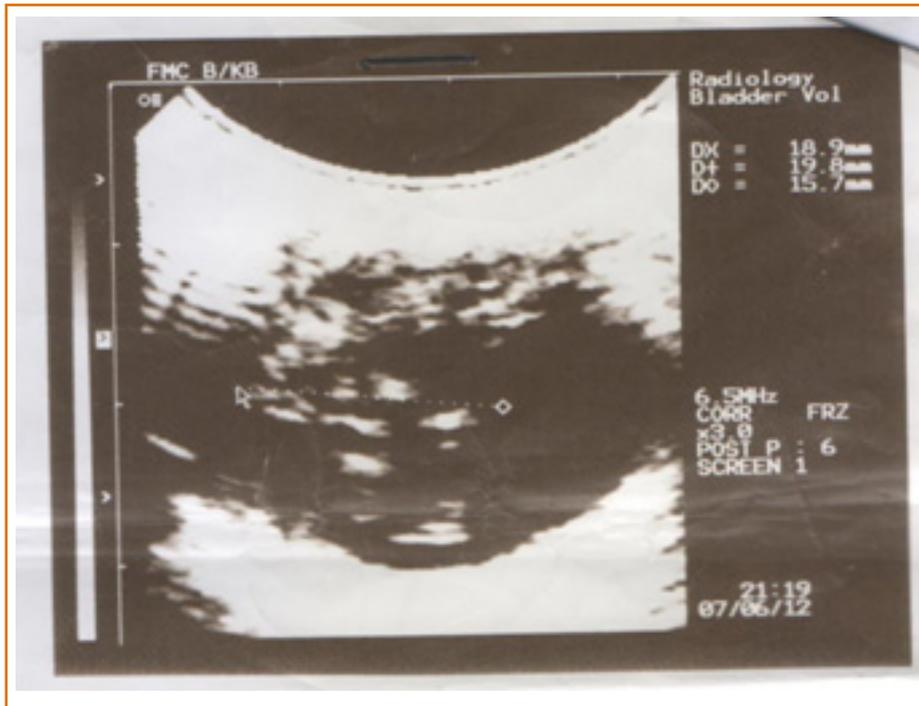


Figure 3: Ocular ultrasound, note vitreous haemorrhage right eye

Discussion

This report illustrates the danger of a mentally ill (MI) individual especially the untreated and street roaming ones, pose to the public. The man being reported was allegedly caught unawares as the MI attacked him with stick from behind, and hence gave him no chance of protecting his right eye. Probably the MI was right handed and attacked the man from the right side leading to heavy impact on the RE. The superior conjunctiva laceration and total hyphema indicated the severity of the trauma and explained the presented poor visual acuity. At presentation the IOP was not checked with available contact tonometer (applanation) as the conjunctiva laceration made us wary of ruptured globe. However, examination under anaesthesia (EUA) confirmed that there was no open globe injury. The IOP was found to be elevated when it was determined and hence beta blocker and acetazolamide were commenced. It was noteworthy that Haemoglobin genotype was among the blood tests conducted as sickle shaped haemoglobin when exposed to acidic milieu does clump together and enhances the blockade of the trabecular meshwork. Therefore; in a patient with sickle cell trait with hyphaema, the use of acetazolamide is not advisable in lowering IOP. The RE elevated intraocular pressure

(IOP) might be due to red blood cells blocking the trabecular meshwork or pupillary opening. The vitreous haemorrhage shown by the ocular ultrasound was not surprising because it can be a complication of ocular blunt trauma. The poor vision was at least due to the combination of hyphema and vitreous haemorrhage. Other possible causes might include macular oedema and commotio retinae. The vision is expected to improve as the vitreous haemorrhage clears over time. An alternative, especially in large vitreous haemorrhage, a vitrectomy procedure would have been a better option but our centre lacks resources for vitrectomy and the patient could not afford (financially) vitrectomy procedure elsewhere. Moreover, aside possible enhanced vision following vitreous haemorrhage resolution; it would have been possible to do fundoscopy. But for the loss to follow up after the first week visit, the patient would have benefited from gonioscopy about 6 weeks post-trauma at least to rule out angle recession glaucoma.

Conclusion

Untreated and roaming mentally ill (MI) can cause avoidable blindness. The public should be on guard during encounters with MI. Since MI may be unaware and exonerated of their life threatening actions we advocate

for free comprehensive rehabilitation to enhance their quality of life and protect the public.

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