

A case of perforating injury of eyeball and traumatic cataract caused by acupuncture

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Perforating globe injury is the leading cause of monocular blindness and vision loss. A 58-year-old male was injured by acupuncture needle during acupuncture treatment for his cerebral infarction. To the best of our knowledge, this is the first case report of perforating injury of the eyeball and traumatic cataract caused by acupuncture. The patient was hospitalized due to diagnosis of perforating ocular injury, traumatic cataract, and corneal and iris perforating injury. Moreover, he had to accept treatments of phacoemulsification, anterior vitrectomy along with intraocular lens implantation in the sulcus to improve his visual acuity. As acupuncture therapy has been widely performed for various diseases and achieved highly approval, the aim of this report is to remind acupuncturists operating accurately to avoid unnecessary injury during the treatment process, or the cure can also become the weapon.

Key words: Acupuncture, perforating globe injury, traumatic cataract

Perforating globe injury is the leading cause of monocular blindness and vision loss. Final visual acuity rates of 20/800 or even worse were reported in a large proportion of patients.^[1] In previous reports, it has been showed that various types of ocular injury and their protective measures. Traumatic cataract is not uncommon and becomes one of the important causes of blindness after ocular trauma. However, no report on case with traumatic cataract associated with acupuncture needle has been previously documented. We herein report a rare case of traumatic cataract with perforating injury of eyeball caused by acupuncture needle during acupuncture treatment for his cerebral infarction.

A 58-year-old male without any ocular disease presented a 3-day history of ocular pain and gradual visual decline in the right eye. He had a history of acupuncture treatment for 1 year and was injured 3 days ago during the treatment. There was no

ocular trauma history before. He had a vision of 0.01. The slit lamp examination showed a full-thickness self-sealed corneal perforation of 3 mm long at 7 o'clock. The anterior chamber evaluation revealed + 2 flare and its beneath was shallow. The perforating injury of the iris could be seen at 8 o'clock position. Ruptured anterior capsule was seen after the pupil was dilated. Vitreous body and fundus could not be displayed due to cortex opacification [Fig. 1]. The color Doppler ultrasound indicated that the posterior capsule was ruptured in the right eye and no intraocular foreign body was found [Fig. 2]. There was no limitation of extraocular movement. Intraocular pressure was 12 mmHg in his right eye and 10 mmHg in the left. The fellow eye had no obvious pathologic abnormality. There was a history of cerebral infarction for one and a half year and that was just the reason for his acupuncture therapy. The patient was hospitalized due to the diagnosis of perforating ocular injury, traumatic cataract, and corneal and iris perforating injury.

After all the necessary examinations, we performed a phacoemulsification on the 5th day after admission. Moreover, during the operation, the posterior capsule was also found ruptured with a needle hole. Hence, phacoemulsification and anterior vitrectomy along with intraocular lens (IOL) implantation in the sulcus were performed. At postoperative day 1, his visual acuity improved to 0.2 and the visual acuity reached to 0.4 when the patient was discharged from hospital on the 2nd day after surgery. The visual acuity was stable in

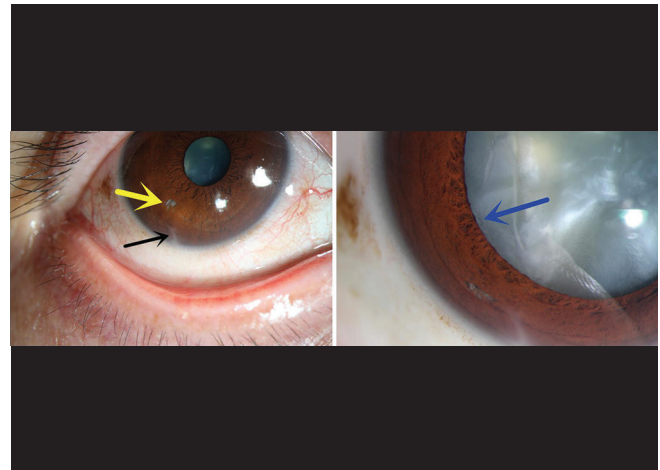


Figure 1: Anterior segment photograph of the injured eye indicated an 3 mm full-thickness self-sealed corneal perforation (black arrow), the performed injury of iris (yellow arrow), and traumatic cataract with ruptured anterior capsule (blue arrow)

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Access this article online	
Quick Response Code:	Website: www.ijo.in
	DOI: 10.4103/0301-4738.182952

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Manuscript received: 03.11.15; **Revision accepted:** 03.03.16

Cite this article as: Shuang H, Yichun K. A case of perforating injury of eyeball and traumatic cataract caused by acupuncture. Indian J Ophthalmol 2016;64:326-7.

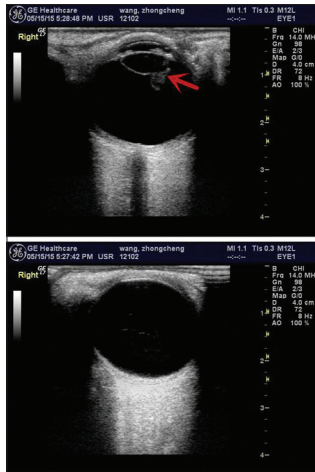


Figure 2: Color Doppler ultrasound of the injured eye demonstrated the posterior capsule rupture and the opacified cortex overflowed from the penetration passage (red arrow)

0.7 3 months after the operation. We would still follow-up closely.

Discussion

As an integral part of traditional Chinese medicine, acupuncture therapy has been considered an effective method for a variety of diseases and physiological disorders for thousands of years. Moreover, acupuncture treatment has gained progressive acceptance worldwide. Recent published articles have demonstrated that acupuncture treatment has got obvious curative effect in eye diseases for dry eye, glaucoma, and so on.^[2,3] Bai *et al.* have proved the safety and effectiveness of ocular acupuncture treatment for stroke.^[4] In this case, the patient just acupuncture for this reason.

Acupuncture therapy involves inserting the tips of thin, stainless steel needles through the skin at special points to exert its therapeutic effect. However, professional operation

of accurate acupoint and depth should be guaranteed firstly. Especially acupuncture therapy of ocular diseases for the position is so close to the anatomical structure of the eye. To the best of our knowledge, this is the first case report of perforating injury of the eyeball and traumatic cataract caused by acupuncture. For this case, fortunately, the acupuncture is of asepsis. Hence, the risk of infection is relatively low. We performed the phacoemulsification, anterior vitrectomy, and IOL implantation in the sulcus on the 8th day after injury. However, timing of cataract surgery and IOL implantation of traumatic cataract continues to be debated worldwide.^[5] In addition, we would like to recommend caution when acupuncturists conduct their operations, especially for eye-related acupoints in the course of treatment or the cure can also become the weapon.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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