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The Plant Foreign Body Into Orbit: Diagnosis and Treatment

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Abstract

Purpose: Report a case of foreign body:

- A branch of eucalyptus tree is perforated into the lower eyelid, next to the globe caused orbital abscess and diplopia. This case was diagnosed and was operated for removing of the foreign body on day 24th after onset.

Design: Case Report of clinical diagnosis and intervention.

Main measures: clinical signs, paraclinical signs included: • X-ray: no sign is detected as twigs did not opacity in X-ray. • Ultrasound: showed foreign body in the orbit, but does not specify the shape, the size of the object and patient's history.

Diagnosis: Foreign body into the orbit through lower lid caused abscess and diplopia

Interventions: surgery and results:

Foreign body into the orbit through lower lid

On day 24th since foreign body in the eye: Local anesthesia and conjunctiva. Surgical exploration through wounded traces extending along the outer eyeball, in positions 3-4 o'clock, freeing abscess pus was done. After pus cleaning, strabismus hook was used for detecting foreign body that is located directly beneath the lower rectus muscle, stabbed in the globe and orbit. Then the foreign body was extracted by strabismus hook. Foreign objects is a twigs tree with size: 5mm diameter, 20mm length. One week after surgery: the abscess collapse, less conjunctiva hyperemia, less bruising lid, no diplopia. Three weeks after the removal of foreign right eye completely back to normal, vision 1/10, IOP 17mmHg.

Conclusion:

1. The initial management and closely monitor patients every day has an important role to remove the foreign bodies as soon as possible, to minimize complications contribute to the success of treatment.

2. Patients with complications and delay in hospital admission and whether did not find any foreign bodies or not:

- Careful detail history patient: especially object is small sized such as twigs of tree.
- Combining the clinical signs: deeply abscess orbit, using strong pressing on the wound to detect the pus out hyperemia of conjunctivitis, diplopia, ptosis and signs of subclinical: ultrasound, X-rays, CT are very useful.

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3. Perform surgery for abscess debridement as well as detect foreign body helping remove foreign bodies sooner with results expected.

Key words: foreign body, orbital abscess, diplopia, surgical treatment.

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I. INTRODUCTION:

Penetrating eye injuries due to foreign body often cause serious damage to the eyes and vision. In the case of contrast object can be determined by X-rays [1]. In the case of object cannot be determined by X-rays, ultrasound image [2] [3], computerized tomography (CT) can be used to confirm [4]. Treatment consists of surgical removal of foreign body, damage recovery and medical treatment of complications such as infection [5][6]. The initial management of removal of foreign intervention as soon as possible to minimize complications and closely monitored to avoid forgotten foreign body in most of the cases the patient to delay in hospital admission with a closed unhealed wound no seeing of any traces of foreign bodies. These are contributing to the success treatment. [6][7].

This article reports a case of plant foreign body:

A piece of eucalyptus twig tree is perforated into the orbit through lower lid - next to the globe caused orbital abscess, diplopia and surgical removal of this piece of tree on day 24th of the onset.

II. CASES REPORT:

A 64-year-old male patient was a farmer. Three weeks ago, while working to cut eucalyptus trees and suddenly a dry tree twigs was snapped and crashed heavily in his right eye. Patients with bleeding in the eye and was taken to an eye health staff for wound treatment. According to the family of the patient, this eye health staff had taken here a very small piece of branch tree (twig) from patient's eye and had given some unknown drugs for more than 2 weeks. During this time the patient's condition did not reduce that tend to increase such as : touching the lower eyelid a tumors with tenderness, pus through the wound hole intermittent then continuous, blurred vision, diplopia relief but patient's feeling was more uncomfortable. Patient was seeked himself referral to treatment.

2.1 Examination: Patient's state: alert, skin membranes: pink. Heart rate: 90 / minute, temperature 37.5 ° C- blood pressure of 120 / 80mmHg. Heart, lungs, abdomen soft, liver, spleen not palpable, no abnormal detected Right eye: Visual acuity 1/10, intraocular pressure 17mmHg (Schiotz). Upper lid was normal. There was a bruise wound (entry) in lower lids, located at the 1 / 3 corners of the nose lid with a hard tumor; about 20 mm in diameter, pressing against the yellow pus appeared through the wound hole. The conjunctiva was intact. There were not any traces of foreign bodies in the conjunctiva. Oculomotor: movement of eye somewhat limited, diplopia. The pupil diameter was 3mm, round, regular, and positive with direct light reflex (+). The anterior chamber and crystalline lens were clear. Fundus examination was normal.

Left eye: Visual acuity 7/10, intraocular pressure 17mmHg. Oculomotor: normal. The other part of the eye was normal.

Paraclinical: RBC= 4 million / mm³- WBC = 8500 /mm³- TS = 3'/TC = 7'. Pus culture and antibiogram.

Result: bacteria Gram (-), sensitive to erythromycin, ciprofloxacin.

X-ray: no sign is detected [1].

Ultrasound: A wave showed for strange body, but does not specify the shape, the size of the object [2] [3].

2.2 Diagnosis:

Foreign body into orbit through lower lid caused abscess and complications with diplopia.

2.3 Treatment:

Preoperation:

Ciprofloxacin 500mg x 2 / day- combined anti-inflammatory prednisolone 25mg / day were used for 3 days

of treatment [5] [6]. Each day monitor close pus through hole.

Surgery: Day 24th since foreign body into the eye: Local anesthesia and conjunctiva. Surgical exploration by an incision extending from the wounded entrance along the outer wall of the eyeball, in positions 3-4 o'clock, was done for freeing abscess pus. After pus cleaning clearly, using strabismus hook to detect foreign body that was located directly beneath the globe, the lower rectus muscle then extracted this foreign body by hook through this hole. From the mouth hole (entrance) to foreign object detection site is about 25mm. Foreign object is a dry twig of tree with size, size: 5mm diameter x 20mm length. (Figure 1 and the patient's right eye) After surgery: One week: abscess collapse, less conjunctival hyperemia, less bruising eyelid, no diplopia. Three weeks after the removal of foreign body the wound was sealed completely. By 3 weeks after treatment right eye completely back to normal, vision 5/10, IOP=17mmHg.

III. Conclusions:

A foreign body into the orbit was reported. This was diagnosed lately and this extracted foreign body on the 24 th day of onset. Some considerations on primary eye care, paraclinical and clinical features, medical and surgical treatments were discussed.

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RE= A foreign body was removed from orbit of right eye: 5mm (diameter) x20 mm (length)