

UNIT NO. 3A

FOREIGN BODY IN THE EYE

Dr Vivien Lim Sin Yi

ABSTRACT

One of the most common eye conditions that is seen in the outpatient setting is that of a foreign body in the eye. It is important to recognise the red flags and know when to refer to an ophthalmologist for further management.

Keywords: Cornea, Foreign Body, Infection, Intraocular

SFP2015; 41(3): 18-19

INTRODUCTION

A foreign body in the eye (metal shard, sand, glass, etc.) is something that enters the eye from outside and cause discomfort and pain to the eye. It can be superficially adherent to the cornea or the conjunctiva or a high-velocity injury can cause the foreign body to enter the globe and be embedded in the lens or on the retina. Foreign bodies in the eye need to be removed in a timely manner to prevent secondary infections from setting in.

History Taking

It is very important to take a detailed history from the patient regarding the circumstances of the injury. If the patient reports a high-velocity injury, e.g. during hammering or grinding, a thorough workup—including imaging studies such as an X-ray of the orbits or a CT scan—is necessary to exclude an intraocular foreign body. A plain X-ray is only useful for radio-opaque foreign bodies and will not detect radiolucent intraocular foreign bodies such as wood or glass. An MRI scan is contraindicated if a metal foreign body is suspected.¹

Ask the patient when the injury occurred and if the patient reports an injury that is a few days old, look out especially for any secondary infection in the eye. If the offending object is rusty or vegetative material, consider giving an anti-tetanus shot and start broad-spectrum topical antibiotics such as gutt. ciprofloxacin or gutt. tobramycin.²

Patients often complain of eye pain, discomfort and foreign body sensation associated with tearing and a red eye.

Examination

Slit lamp examination is very important. It is also important to

evert the eyelid to look for any foreign body embedded on the underside of the lid.

How To Remove a Corneal Foreign Body

Seat the patient comfortably. Apply topical anaesthetic to the eye and, using a 27g needle, bend the tip and approach the eye from the side.² Most corneal foreign bodies can be removed by the general practitioner or emergency doctors. Referral to the ophthalmologist is necessary when there is/are:

- 1) More than three days' history of foreign body in the eye as there is high likelihood of secondary infection;
- 2) White opacity on the cornea: suggestive of corneal ulcer;
- 3) Decreased visual acuity;
- 4) Hyphema (blood in the anterior chamber);
- 5) An abnormally shaped pupil;
- 6) Possible penetration of the eye with an intraocular foreign body;
- 7) An extremely uncooperative patient;
- 8) Multiple foreign bodies; or
- 9) Diffuse subconjunctival haemorrhage.

REFERENCES

1. Wong TY. The ophthalmology examinations review. Singapore: World Scientific, 2011.
2. Gerstenblith AT, Rabinowitz MP, editors. The Wills eye manual: office and emergency room diagnosis and treatment of eye disease, Sixth edition. Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins, 2012.

VIVIEN LIM SIN YI
Consultant
Department of Ophthalmology
National University Hospital

LEARNING POINTS

- History taking is essential in patients who present with a foreign body in the eye.
 - It is important to exclude any intraocular foreign body when the examination shows suspicious findings by doing a CT orbit.
 - After removing a corneal foreign body, it is often important to start a broad-spectrum antibiotic eyedrop to treat any secondary infection.
-