

CLINICAL IMAGE

A smartphone, a slit lamp, and an ophthalmology consult

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Abstract

Clinicians should always consider capturing images with their phone when possible so that key clinical findings seen in the real-time physical examination can be memorialized in the electronic medical record.

KEY WORDS

corneal foreign body, rust ring removal, slit-lamp examination, smartphone clinical image

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Photographs of a rust ring were taken through the eyepiece of the slit lamp with a smartphone and uploaded to the electronic medical record allowing for the images to be viewed by the out-of-hospital Ophthalmology consultant in order to expedite definitive care.

A metal worker presented to the emergency department (ED) with eye pain and tearing which started suddenly while changing clothes after work. His examination demonstrated excess lacrimation and conjunctival injection. Pupils were round, equal, and briskly reactive.

A rust ring was identified on the cornea on slit-lamp examination (Figure 1), and a 1 mm metallic foreign body was found on eversion of the upper tarsal plate. Photographs of the slit-lamp findings were taken through the eyepiece of the slit

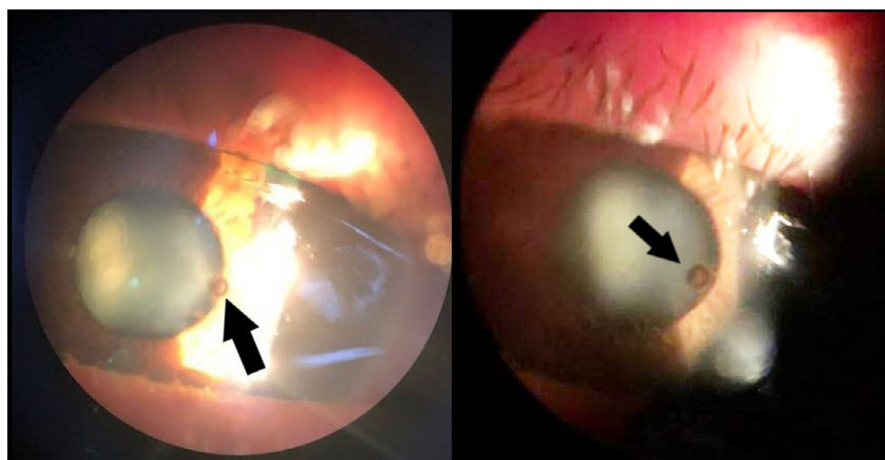


FIGURE 1 Slit-lamp findings captured by a clinician's smartphone depicting a rust ring on the periphery of the cornea

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lamp with a smartphone (without an adapter) and uploaded securely to the EMR allowing the images to be viewed by the out-of-hospital Ophthalmology consultant who then came to the ED and removed the rust ring with a burr and prescribed antibiotic drops.¹ The patient was seen in clinic the following day and reported improvement.

Metallic foreign bodies of the eye can cause corneal abrasions and often rust rings. If not removed, they can cause permanent staining of the cornea, persistent inflammation, and disruption of corneal integrity. Rust rings should be removed as soon as possible and may be performed in the ED with a hypodermic needle or corneal burr by the ED physician or by Ophthalmology the following day.²

CONFLICT OF INTEREST

None declared.

AUTHORS' CONTRIBUTIONS

SD: treated the patient, captured the images, co-conducted the literature review, and co-wrote the paper. KB: analyzed the case, co-conducted the literature review, and co-wrote the

paper. AR: co-wrote the paper and coordinated and corrected the paper.

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