

# More than a scratch: emergency setting eye evaluation during COVID-19 lockdown

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## Correspondence to

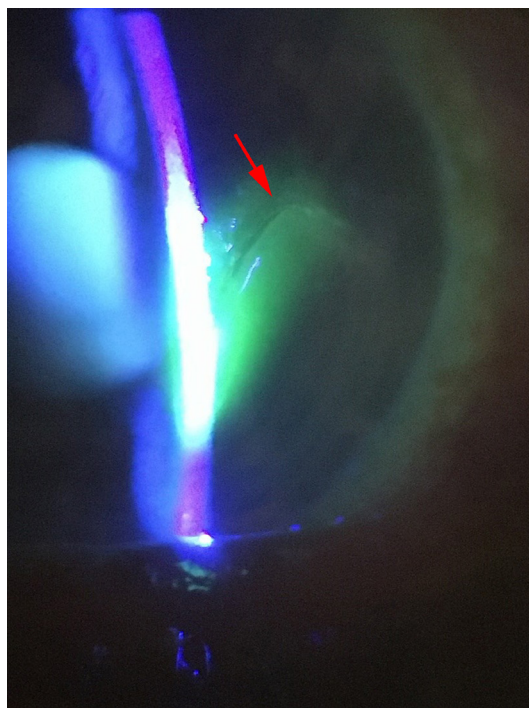
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## DESCRIPTION

A middle-aged man presented to the acute eye clinic during the COVID-19 pandemic complaining of a red painful left eye. This was following trauma by a shrub branch while gardening. At initial review, a partial thickness-shelved corneal laceration was surprisingly noted to be Seidel negative, despite transecting almost 90% of the corneal thickness at the deepest point ([figure 1](#)).

Seidel test helps rule out a full-thickness corneal defect, which would result in aqueous leak from the anterior chamber. Concentrated 2% fluorescein is applied topically to the eye and illuminated with the cobalt blue light filter on a direct ophthalmoscope or slit lamp. Fluorescein is a fluorophore excited by blue light (465–490 nm) and fluorescing yellow-green light (520–530 nm). Concentrated fluorescein is dark orange. Aqueous leak dilutes the fluorescein resulting in a bright yellow fluorescence at the aqueous-fluorescein border.<sup>1</sup> This is called a positive test result, which may arise from trauma or corneal melt due to conditions such as rheumatoid arthritis.<sup>2</sup>



**Figure 1** Slit-lamp colour image of the left eye, after application of 2% fluorescein, seen under cobalt blue light. The red arrow is pointing to the apex of the 3.7×1.4 mm corneal laceration.

## Patient's perspective

I felt very fortunate to avoid surgery and maintain good vision despite a serious eye injury. And it became important for me to spread the word to family and friends about the importance of eye protection.

## Learning points

- ▶ We hope this case is a reminder to the reader of the high clinical value of the simple yet effective Seidel test, which can detect potentially sight-threatening ocular trauma.
- ▶ Eye and vision-related presentations are very common both in primary and secondary care.<sup>4</sup> Lockdown is resulting in more people undertaking home-improvement and gardening work with high-powered tools, which have the propensity to cause penetrating eye injuries.<sup>5</sup>
- ▶ The equipment required, a direct ophthalmoscope and fluorescein drops, is routinely held in both the general practice as well as emergency department settings.

Small-shelved corneal lacerations with a formed anterior chamber may not require suturing as they often heal spontaneously.<sup>3</sup> This case was managed conservatively with a bandage contact lens and intensive topical antibiotic (preservative-free 0.5% levofloxacin hourly) and cycloplegic (cyclopentolate 1% three times a day) eye drops. A Cartella eye shield was used to protect the eye in between clinic reviews. The follow-up period was over 5 weeks with five clinic visits. Final best corrected visual acuity was 6/5. Close follow-up was required as there is a risk of fungal infection from gardening injuries.

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## REFERENCES

- 1 American Academy of Ophthalmology. Seidel test, 2020. Available: <https://www.aao.org/image/new-mediabeacon-item-49> [Accessed October 2020].
- 2 Campbell TD, Gnugnoli DM. Seidel Test. In: *StatPearls*. Treasure Island FL: StatPearls Publishing, 2020.
- 3 Kanski J. Clinical ophthalmology: a systematic approach. *Butterworth Heinemann* 2003:672–3.
- 4 NHS. Ophthalmology is the most common outpatient specialty: Hospital Outpatient Activity, 2018-19: main specialty, 2019. Available: <https://digital.nhs.uk/data-and-information/publications/statistical/hospital-outpatient-activity/2018-19>
- 5 Sky news. Coronavirus lockdown demand for DIY and gardening goods boosts B&M sales, 2020. Available: <https://news.sky.com/story/coronavirus-lockdown-demand-for-diy-and-gardening-goods-boosts-b-m-sales-11996737> [Accessed October 2020].

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