

Sir,
Red reflex mimicking lens subluxation in a child undergoing orthokeratology

The red reflex or Bruckner test uses transmission of light from an ophthalmoscope through the subject's eye and comparison of the reflexes to assess strabismus, anisometropia, or any abnormality of the optical pathway.^{1,2} The American Academy of Pediatrics currently recommends the assessment of the red reflexes in the neonatal period and during all subsequent routine physical examination visits.³ We report a patient undergoing orthokeratology treatment who presented with abnormal red reflexes mimicking bilateral lens subluxation.

Case report

A 15-year-old neurodevelopmentally normal boy was seen in the paediatric neurology department after five episodes of generalized tonic-clonic seizures. He was referred for ophthalmology consultation, because his abnormal red reflexes suggested bilateral lens subluxation. On direct questioning, the patient reported that he had recently started orthokeratology treatment, wearing rigid contact lenses overnight for the previous 2 weeks to correct myopia of -4.0 D, OU. On examination, his uncorrected visual acuity was 20/20 in each eye. The Bruckner test showed abnormal red reflexes simulating lens subluxation (Figure 1), and the slit-lamp examination revealed corneal distortion, but no lens subluxation. The remainder of the eye examination was unremarkable.

Comment

The principle of orthokeratology is to flatten the central cornea by wearing rigid contact lenses overnight to temporarily correct low-to-moderate myopia.⁴ The Canadian Ophthalmological Society does not endorse this procedure as it carries significant risks to the health of eyes and vision.⁵ Changes in corneal curvature occurs

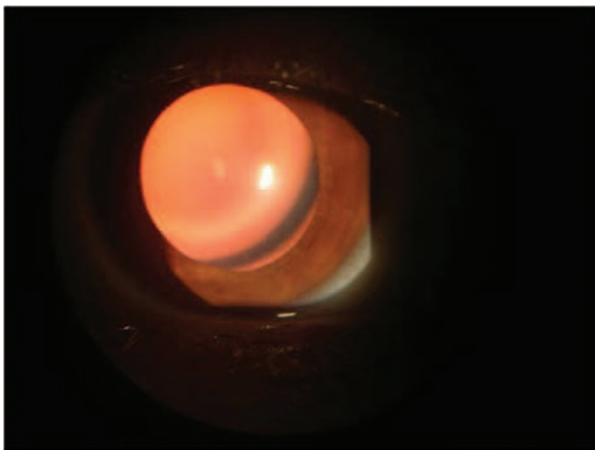


Figure 1 A slit-lamp view of the left eye of patient undergoing orthokeratology treatment; the red reflex mimicks lens subluxation.

rapidly, with 60% of the refractive change seen after 1 h of lens wear.⁴ These contact lens-induced corneal changes can cause abnormal red reflex similar to that of lens subluxation, a finding which has not been previously reported. Physicians should be aware that alteration of red reflexes can occur in patients undergoing orthokeratology treatment.

References

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Sir,
Clinical coding of surgical procedures in the ophthalmology department

Clinical coding is a process by which descriptions of diseases, injuries or procedures are assigned a numeric or alphanumeric designation. Coding provides a mechanism for standardizing the recording of information and therefore, if accurate, is a valuable tool for audit, epidemiological studies, healthcare planning, and resource allocation.

In recent years clinical coding has become increasingly important and there are at least two main reasons for this. First, coded data is now used to calculate surgical complication statistics, which may be used to compare the performance of individual units or surgeons. If there are errors in clinical coding the reported complication rates will be inaccurate. Jain *et al*¹ examined 80 consecutive cataract extractions that had been coded by clinical coders as having had a surgical complication. Fifty percent of the patients were found to not actually