

# An unusual unilateral benign congenital anomaly of the pupil

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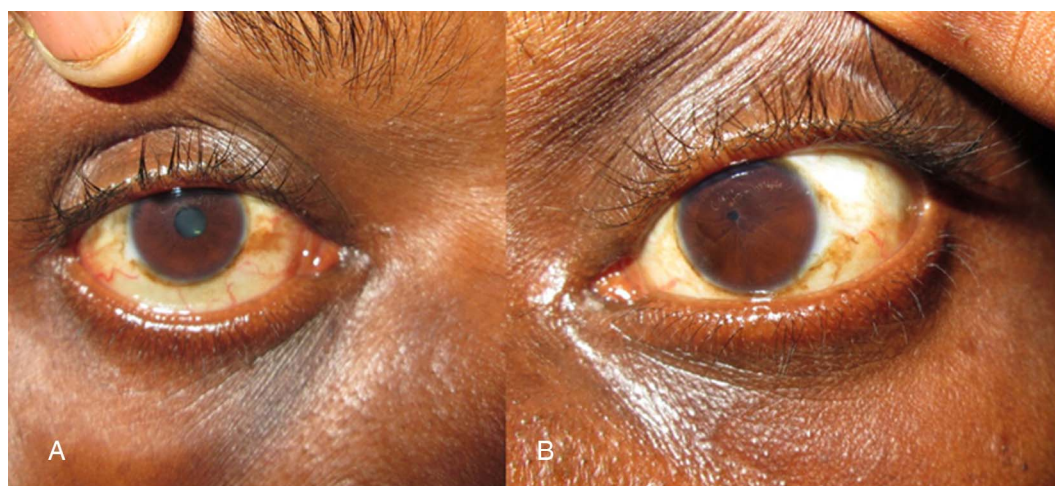
## DESCRIPTION

A 50-year-old male manual labourer attended the outpatient department with history and clinical features of upper respiratory infection. He had studied up to the fifth grade. There was no history of visual symptoms. There was no significant family history of congenital ocular diseases. His vital signs, general and system examinations were normal. However, examination of his left eye showed a

small eccentrically placed pupil with reduced pupillary diameter (**figure 1**). The right pupil was of normal size and reaction (**figure 2**). The comparative images of both eyes are shown in (**figure 3A, B, C**). The extraocular movements were normal and full bilaterally. His visual acuity and optic fundi were normal. An ophthalmic consultation was done, which demonstrated a normal visual field and acuity. He was diagnosed as having unilateral idiopathic tractional corectopia. Congenital abnormalities of pupil position and shapes are uncommon. The normal pupil sizes in adults vary from 2 to 4 mm in diameter in bright light to 4–8 mm in the dark and are generally equal in size.<sup>1</sup> Pupils are normally situated about 0.5 mm inferonasally from the centre of the iris.<sup>2</sup> Corectopia refers to displacement of the pupil, which is normally situated about 0.5 mm inferonasally from the centre of the iris. Minor deviations of up to 1 mm are usually cosmetically insignificant and should probably not be considered abnormal.<sup>2</sup> In this case, the abnormal position of the pupil is caused by a fibrous structure that tethers the iris pupillary margin to the peripheral cornea.<sup>3</sup> Idiopathic tractional corectopia is an isolated unilateral congenital pupil abnormality with a highly characteristic appearance.



**Figure 1** Pupil of the left eye is small in size, displaced nasally and inferiorly suggestive of corectopia.

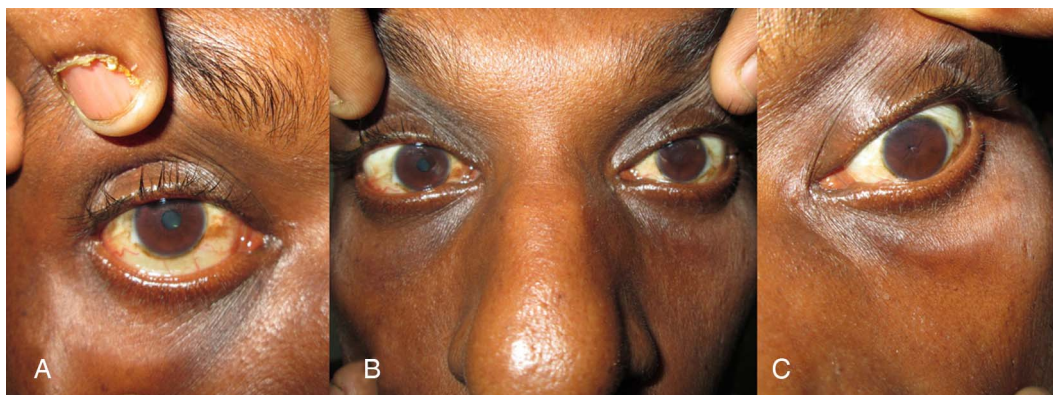


**Figure 2** Images of the two eyes shown together for comparison. (A) Normal pupil of the right eye. (B) Pupil of the left eye is small in size, displaced nasally and inferiorly suggestive of corectopia.



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**Figure 3** (A) Normal pupil on the right side. (B) Photograph of both eyes taken together showing corectopia on the left and normal pupil on the right. (C) Left eye showing corectopia.

### Learning points

- Anisocoria in young patients is most frequently physiological (benign) and is present in approximately 20% of healthy patients.
- In this rare anomaly, visual acuity may be good, even with eccentric pupils, if not associated with other congenital anomalies or defective vision; only reassurance is needed. Most cases require no intervention or respond well to simple lysis of the fibrous strand that is characteristic of the condition.
- Differential diagnosis of corectopia includes iridocorneal endothelial syndrome, Axenfeld-Rieger syndrome, trauma, sector iris hypoplasia or other colobomatous lesions.

**Contributors** CR was the physician under whom the outpatient department was conducted where the patient attended. He had a major role in conception of the idea of writing, editing, formatting and uploading the manuscript. VAT, RG and RP were responsible for obtaining the consent of the patient, taking photographs of the patient, writing the first draft and collecting references.

**Competing interests** None.

**Patient consent** Obtained.

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