A rare case of bilateral granular corneal dystrophy with keratoconus and primary angle closure glaucoma

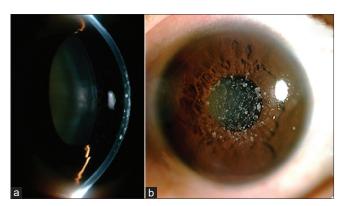


Figure 1: (a) Right eye: Slit section image showing stromal deposits in GCD. (b) Left eye: Diffuse slit-lamp image showing granular deposits in the central cornea. GCD = granular corneal dystrophy

A 41-year-old female presented with clinical features of bilateral granular corneal dystrophy (GCD) [Fig. 1a, b], keratoconus on Pentacam [Fig. 2a–d], and primary angle closure glaucoma. GCD with keratoconus is rarely reported. [1-4] Although no evidence-based analysis has linked this association, many theories have been proposed, including abnormal synthetic activity of keratocytes and degeneration of defective basal epithelial cells, speculated to occur in both. [2] While GCD is clinically obvious, this case emphasizes the need to identify associated factors in effective planning and management. Documenting keratometry in GCD patients may aid in early diagnosis.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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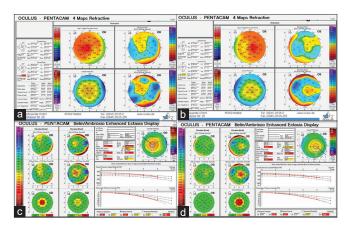


Figure 2: (a, b) Pentacam image of the right and left eyes showing thinnest pachymetry corresponding with area of steepening and highest point of elevation. (c, d) Pentacam image of the right and left eyes showing Belin/Ambrósio enhanced ectasia display

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