Anterior lenticonus associated with Alport syndrome

A 22-year-old male presented with urinary complaints. On ocular examination, his best corrected visual acuity was 20/80 OU. Slit lamp examination revealed conical protrusion of anterior surface of crystalline lens suggestive of anterior lenticonus in left eye [Fig. 1a]. Retinoscopy revealed –2.0 DS/–1.50 DC @ 160° in left eye and dull glow due to cataract in right eye. Scheimpflug imaging confirmed the examination findings of anterior lenticonus [Fig. 1b]. Fundus was normal. Electron microscopy findings of renal biopsy were suggestive of Alport syndrome [Fig. 2a and b].

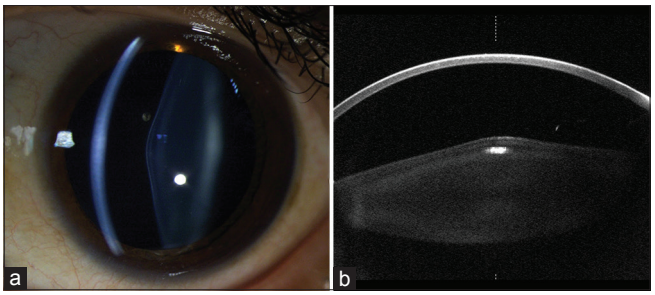

Figure 1: (a) Anterior segment photograph showing conical protrusion of anterior surface of crystalline lens suggestive of anterior lenticonus; (b) Scheimpflug image supporting the clinical findings of anterior lenticonus

Conclusion

Anterior lenticonus is a rare condition, commonly associated with Alport syndrome, which is characterized by genetically defective synthesis of Type IV collagen.[1,2]

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 The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

Financial support and sponsorship

Nil.

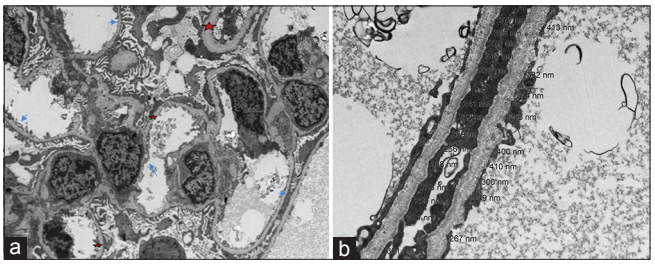

Figure 2: Electron microscopy photographs showing; (a) Glomerular capillaries having thin (arrows) and thick areas (stars) with loss of tri-lamellar structure of basement membrane. There are no immune complex type of deposits(Uranyl acetate, x1000 direct magnification), (b) glomerular capillaries having variable thickness and extensive splitting of basement membrane giving basket weave appearance (Uranyl acetate, x5000 direct magnification)

Conflicts of interest

There are no conflicts of interest.

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