**Answer**

Left Descemet’s membrane breaks caused by forceps delivery.

(Question on page 26)

**Discussion**

The clinical photograph in **Figure 1** shows a deep stromal scar with two vertical Descemet’s membrane breaks. The scar on the left side of the face, which was caused by obstetric forceps and is shown in **Figure 2**, supports the evidence of birth trauma. The differential diagnosis of Descemet’s membrane breaks include:

1. Trauma (birth trauma or contusion)
2. Acute hydrops of the cornea (due to keratoconus)
3. Buphthalmos (from congenital glaucoma)
4. Myopia with marked anteroposterior diameter
5. Conical cornea.

Descemet’s membrane is the thick basal lamina synthesized and secreted by corneal endothelial cells. In adults, this membrane has 2 layers. The anterior layer is formed by highly organized collagen lamellae and proteoglycans, which are synthesized and secreted during fetal development, and the posterior layer is an amorphous collagenous layer that is synthesized after birth. It gradually becomes thicker with age and measures about 2 μm in young adults and 10 μm in older adults. Adult Descemet’s membrane contains type IV collagen, fibronectin, laminin, heparin sulphate, and dermatin sulphate proteoglycan.

**Figure 1.** Slit lamp photograph of the cornea of a child with impaired vision in the left eye.

**Figure 2.** Scar on left side of the face of the same child.

This case illustrates the complications of Descemet’s membrane breaks caused by birth trauma: marked with-the-rule astigmatism, significant axial myopia, and amblyopia. The cornea may become decompensated when there is severe damage to the endothelium.

If detected early, good visual acuity can be achieved with optical correction. Vigorous treatment is required for those patients with amblyopia. In severe cases, penetrating keratoplasty may be considered.

**References**