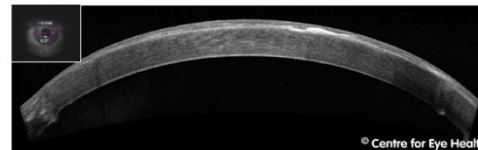
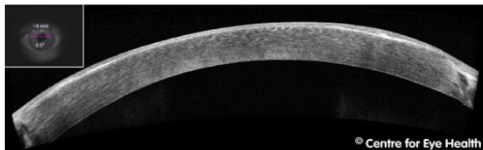
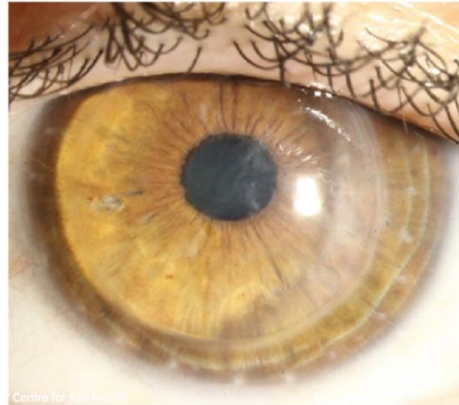




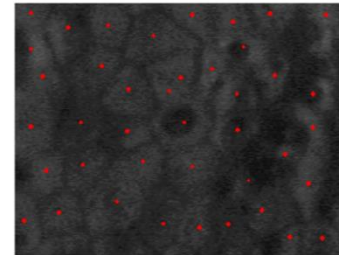
CFEH Facebook Case #99

A 48 year old Caucasian male reports having had bilateral corneal grafts approximately 30 years ago to treat keratoconus. He feels that his vision has been progressively deteriorating over the last 3-4 months. Aided acuities were measured at 6/19 OD and 6/30+ OS with each eye improving to 6/12 with a pinhole. What is the likely cause of his reduced vision?

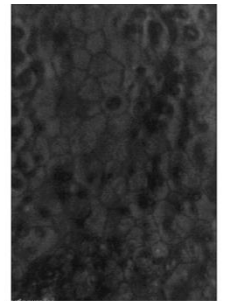


OD

Cell density and area statistics (N =41)

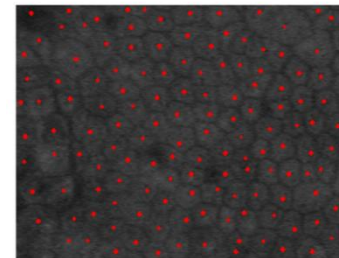


Cell Count: 425 [cell/mm²]
 Normal: 1751 - 3279 [cell/mm²]
 Density [ROI]: 425 [cell/mm²]
 Area [ROI]: 0.0965 [mm²]
 Density [POLY]: 0 [cell/mm²]
 Area [POLY]: 0.0000 [mm²]
 Distance 0.0 [μm]

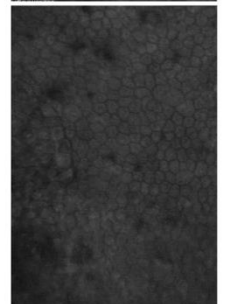


OS

Cell density and area statistics (N =139)



Cell Count: 1440 [cell/mm²]
 Normal: 1751 - 3279 [cell/mm²]
 Density [ROI]: 1440 [cell/mm²]
 Area [ROI]: 0.0965 [mm²]
 Density [POLY]: 0 [cell/mm²]
 Area [POLY]: 0.0000 [mm²]
 Distance 0.0 [μm]



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ANSWER

The anterior OCT and photos show stromal haze in both eyes, affecting the paracentral cornea in the right eye and the central cornea in the left. Guttata were bilaterally on slit lamp and the OCT images show a thickened epithelial layer.

Confoscan endothelial cell count results show a cell count of 425 cells/mm² in the right eye and 1440 cells/mm² in the left. Both eyes are significantly below the “normal” range for this patient’s age of 1751-3279 cells/mm². The confocal images also highlight the guttata (appearing as dark areas in the magnified images, most notable in the right eye).

Given the stromal haze, guttata, reduced endothelial cell counts and reduced vision, this patient was recommended referred to a corneal specialist. As the patient has had a corneal graft, these signs may be indicators that the graft is failing particularly given his recent symptoms of reduced vision