

Ultrastructure of Corneal Disease: Case Vignettes

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Abstract

The ultrastructural examination of corneal biopsies can be challenging owing in part to the infrequency in which they are encountered by most Electron Microscopy laboratories. This presentation aims to provide some guidance in the interpretation of corneal ultrastructure and should not be regarded as a comprehensive overview of corneal pathology. The corneal biopsies presented illustrate the utility of electron microscopy in a range of pathological situations including a lysosomal storage disorder, a paraproteinemic deposition disease (Figure 1), vascularisation of the corneal stroma, and an infection.

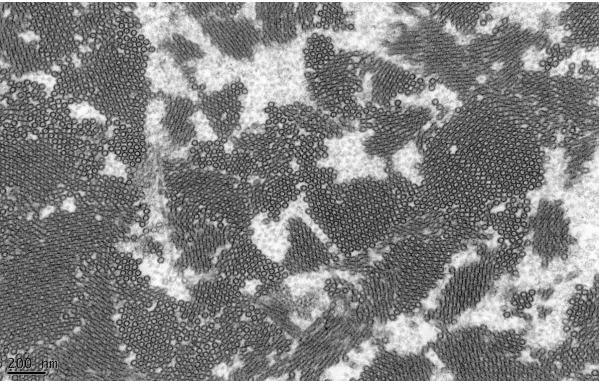


Figure 1. Electron microscopy of a corneal graft biopsy. Abundant microtubules, orientated largely in cross-section in this field of view, are identified within the corneal stroma. The ultrastructure is consistent with a recurrent paraproteinemic crystalline keratopathy.

References

1. Proia AD & Klintworth GK. In *Diagnostic Ultrastructure of Non-Neoplastic Diseases* (1992). Edited by Papadimitriou JM, Henderson DW & Spagnolo DV.