This book treats the in vivo morphology of human adenovirus corneal epithelial infections and of Thygeson’s superficial punctate keratitis (TSPK), both captured in high-magnification photographs.

The two diseases are apparently disparate: adenovirus eye infections are very common, caused by a known agent, and highly infectious; TSPK is comparatively rare, its cause unknown, and it seems non-contagious; also, the course of the two diseases is different. Why, then, are they so often confused in clinical practice? The reason is the similarity between adenovirus epithelial infiltrates and ‘coarse’ TSPK epithelial lesions.

Part I of this book shows corneal epithelial changes caused by various adenovirus serotypes captured in different individuals at various points of time. The accompanying case reports highlight the importance of familiarity not only with the well-known picture of adenovirus epithelial keratitis, but also with the early manifestations of the infection. An early diagnosis is particularly difficult but of paramount importance in infections superimposed on the patients’ preexisting diseases because such an event might herald a nosocomial outbreak of epidemic keratoconjunctivitis with its well-known disastrous consequences. A sequela of adenovirus epithelial keratitis are subepithelial opacities (infiltrates), which may persist for many years or even indefinitely; the included series shows a sequence of events occurring in them during 3 years following the infection.

Part II of this book shows corneal epithelial changes occurring in TSPK, both typical and atypical; the case reports demonstrate the long-term nature of the disease and highlight the importance of the patient’s history in differentiating TSPK from adenovirus infections and, particularly so in atypical TSPK, also from herpes simplex virus infection.

The interpretation of the findings partly relates to corneal epithelial disturbances caused in human by the two other major viruses (herpes simplex and varicella-zoster) observed in vivo by the same method. Additionally, a scrutiny of sequences of events sheds some light on the mechanisms behind the similarity between epithelial changes occurring in adenovirus infections and TSPK.

I hope that this book showing the natural course of adenovirus epithelial keratitis and TSPK will not only serve as a diagnostic tool but, as no curative treatment has been found yet for either of them, also as a reference when effects of new drugs are evaluated.
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