Histopathology of Radial Keratotomy

We present this case as a pictorial of radial keratotomy (RK) with significant subepithelial fibrosis. This type of scarring is a well-known complication of photorefractive keratotomy but is not as well documented as an adverse effect of RK.1-4 Although such extensive fibrosis is uncommon, it can develop and cause significant visual impairment.2

Report of a Case. A 39-year-old man with a history of RK performed elsewhere 8 years prior had complaints of decreased vision in both eyes. The patient’s preoperative refraction was –9.25 OD and –9.50 OS. According to the patient, the initial surgery was uncomplicated, although both eyes required enhancements. Cycloplegic refraction in our office was –3.50 +0.50 × 70 OD and –13.50 +1.00 × 100 OS, giving a best-corrected visual acuity of 20/200 OD and 20/80 OS. Unfortunately, the patient did not have interval examinations, and so the progression of refractive change to the current level is unclear. Keratometry in both eyes showed extremely distorted and non-superimposable mires. Slitlamp examination revealed scars corresponding to the RK incisions and extensive central subepithelial fibrosis within the optical zone (Figure 1). The patient underwent penetrating keratoplasty of the left eye.

The hazy corneal button measured 9 mm in diameter. Sections revealed corneal tissue with a mild decrease in endothelial cell count. The Descemet’s membrane was unremarkable. There was a moderate amount of stromal scarring present. At the periphery of the specimen, the RK incisions spanned 75% of the corneal thickness. Epithelial inclusion cysts were noted at some of the incision sites (Figure 2). Centrally, there was a subepithelial fibrous plaque (Figure 3). Bowman’s layer was seen under the fibrous plaque. Intraepithelial dupli-
cation of basement membrane was seen throughout the specimen (Figure 4).

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Systemic Non-Hodgkin B-Cell Lymphoma Encountered as a Vanishing Choroidal Mass

Intraocular lymphomas may be subclassified as primary ocular/central nervous system lymphoma and systemic non-Hodgkin lymphoma. Systemic non-Hodgkin lymphomas are usually B-cell lymphomas but may also be of T cell origin. Although ocular/central nervous system lymphomas may commonly be encountered with ocular involvement, it is rare for systemic non-Hodgkin lymphomas to be seen initially as ocular lesions.1-6 We report the case of a systemic large B-cell, non-Hodgkin lymphoma encountered as a choroidal mass with resolution of the ocular lesion after fine-needle aspiration biopsy.

Report of a Case. A 47-year-old woman sought treatment for sudden decreased vision in her left eye. Best-corrected visual acuity was 20/30 OD and hand movements OS. Intraocular pressure was 18 mm Hg in each eye. A left relative afferent pupillary defect was present. Results of an anterior segment examination were unremarkable in both eyes. Dilated ophthalmoscopic examination was unremarkable in the right eye, but disclosed a total, bullous serous retinal detachment in the left eye. A choroidal mass was visualized, although details could not be appreciated owing to the overlying retinal detachment. Standardized A- and B-scan echography demonstrated an extensive, irregularly shaped, regularly structured, low-reflective lesion with maximal elevation of 8.9 mm (Figure 1). Marked vascularity was noted on dynamic echography and confirmed by color Doppler imaging (Figure 2).

Figure 1. Standardized A- and B-scan echography findings at initial examination. A, Transverse B-scan shows the extensive, solid, low-reflective mass lesion (large arrow). B, Longitudinal B-scan demonstrates the radial extent of the tumor (large arrow) and the total retinal detachment (small arrow). C, Standardized A-scan illustrates the surface of the solid mass (thin arrow) and the regular structure and low reflectivity (thick arrow).

Figure 2. Color Doppler image shows marked internal vasculature of the solid tumor (arrow).