

Acanthamoeba keratitis

Category(ies): Cornea, External Disease

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Acanthamoeba keratitis is a rare parasitic infection of the cornea that primarily occurs in contact lens wearers. The infection may be limited to the epithelium in its early stages, resulting in epithelial dendrites and punctate epitheliopathy. Later stromal involvement classically results in a partial or complete paracentral ring infiltrate, radial perineuritis, and pain out of proportion to the appearance on exam. Scleritis and uveitis may also be present.



Figure 1: Corneal ring infiltrate in a patient with *Acanthamoeba* keratitis. The diagnosis was confirmed by confocal microscopy (Figure 3).

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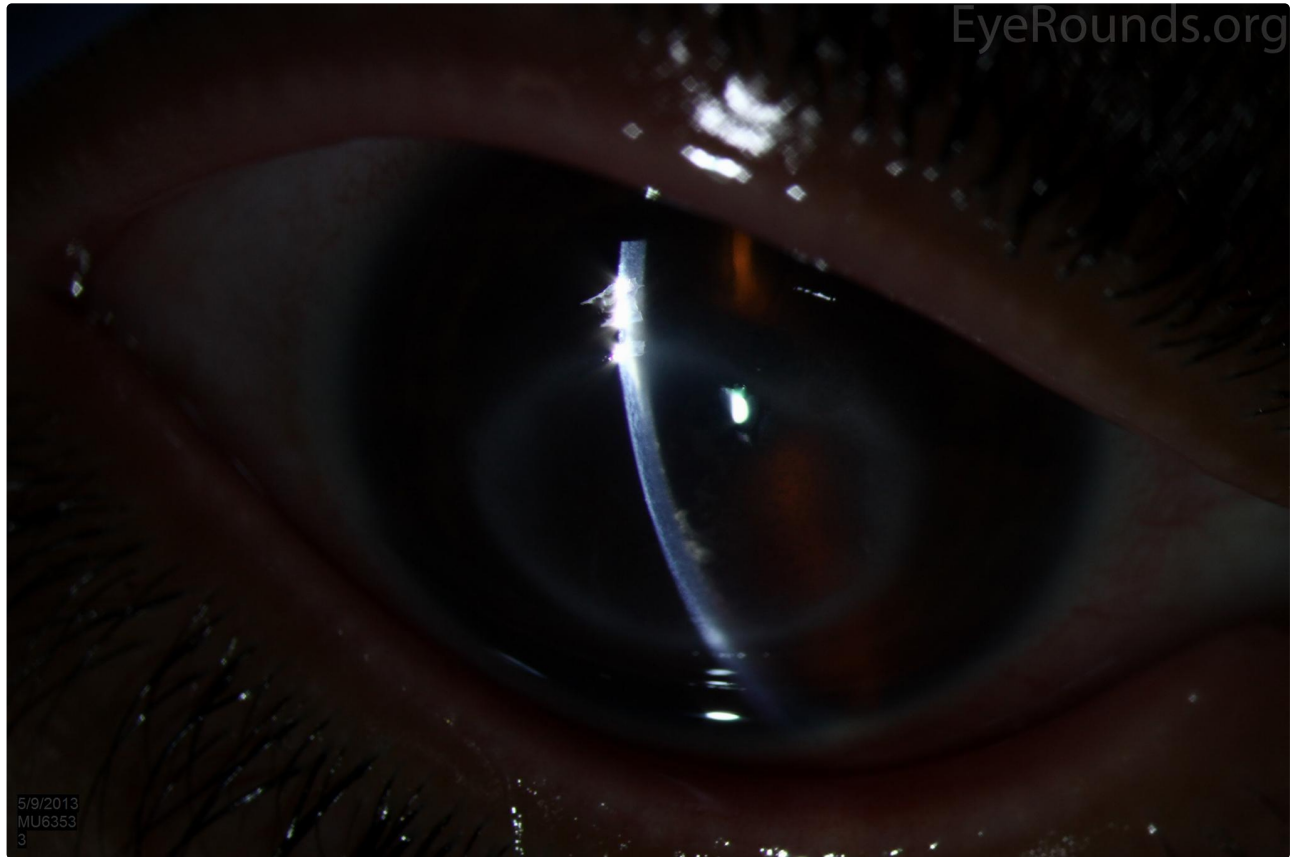


Figure 1 - Slit Lamp: Corneal ring infiltrate in a patient with Acanthamoeba keratitis. The diagnosis was confirmed by confocal microscopy (Figure 3).

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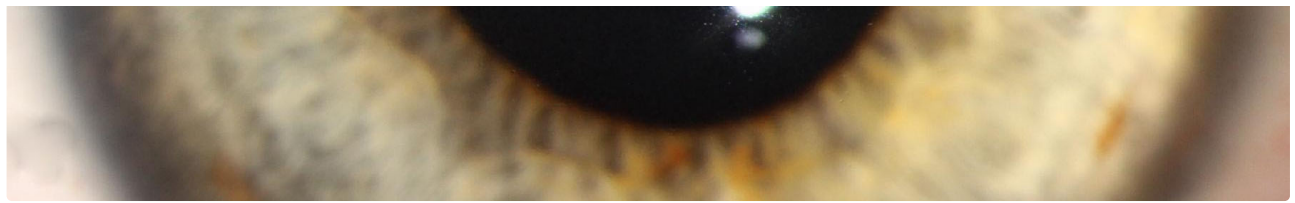


Figure 2: Concentric ring infiltrate in a contact lens wearer with early Acanthamoeba keratitis.

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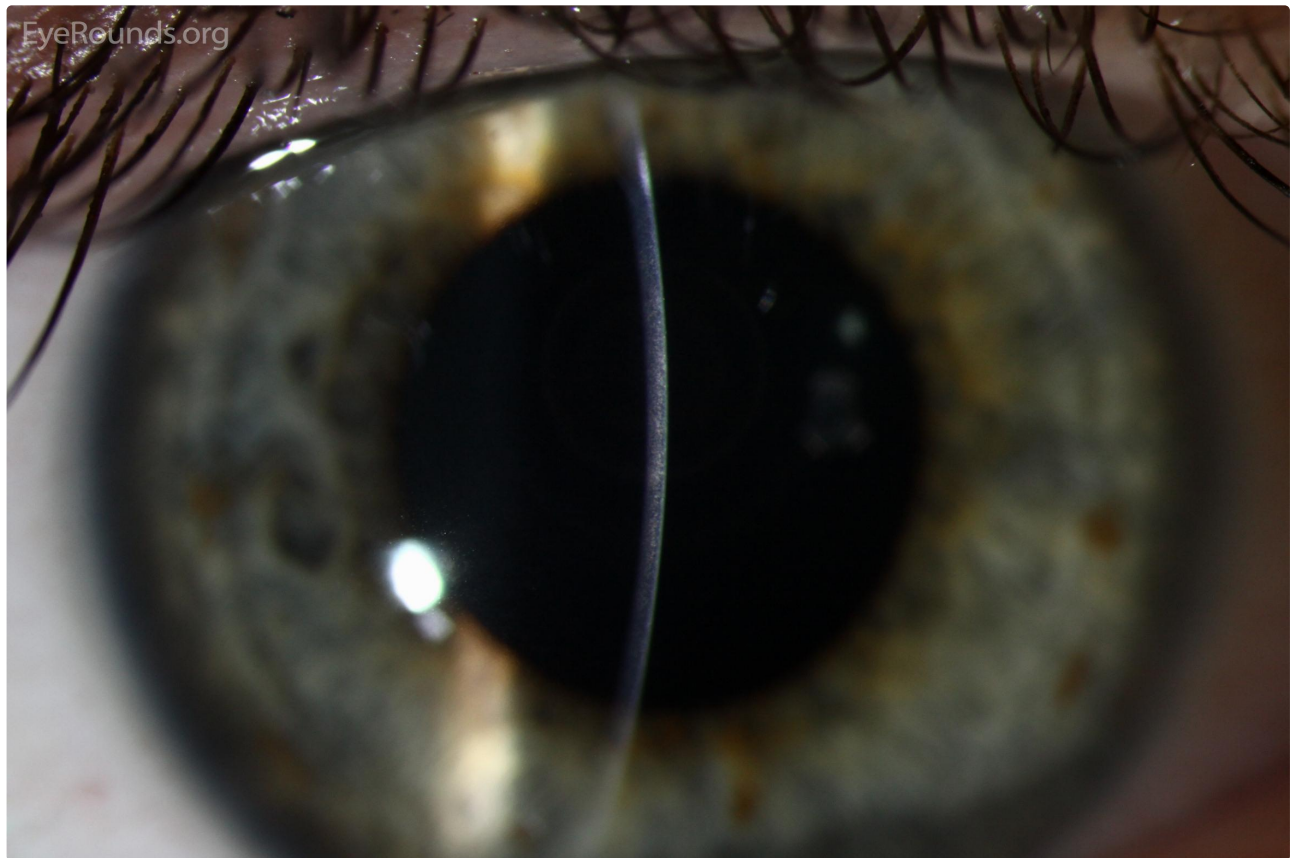


Figure 2 - Slit Lamp: Concentric ring infiltrate in a contact lens wearer with early Acanthamoeba keratitis.

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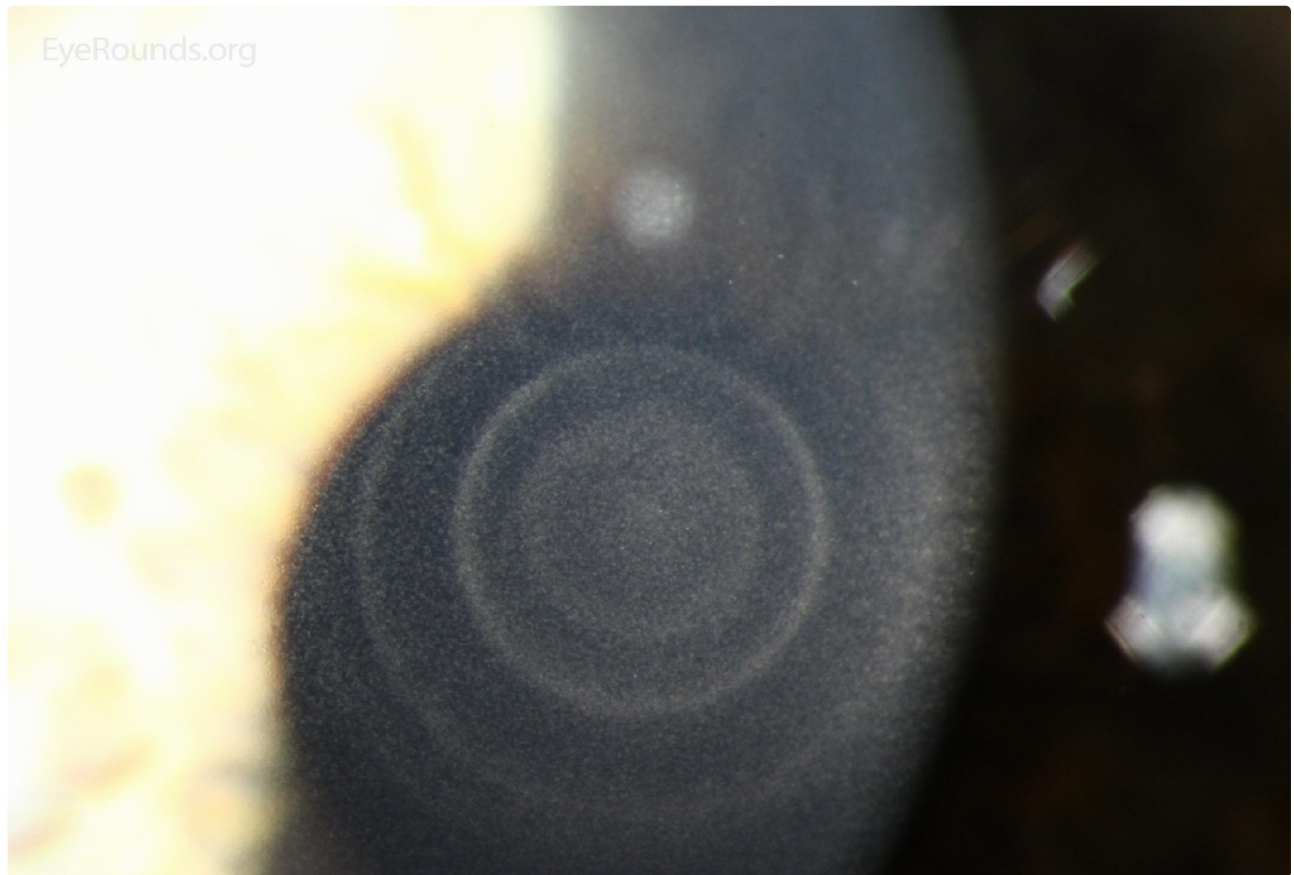


Figure 2 - Enhanced Zoom: Concentric ring infiltrate in a contact lens wearer with early Acanthamoeba keratitis.

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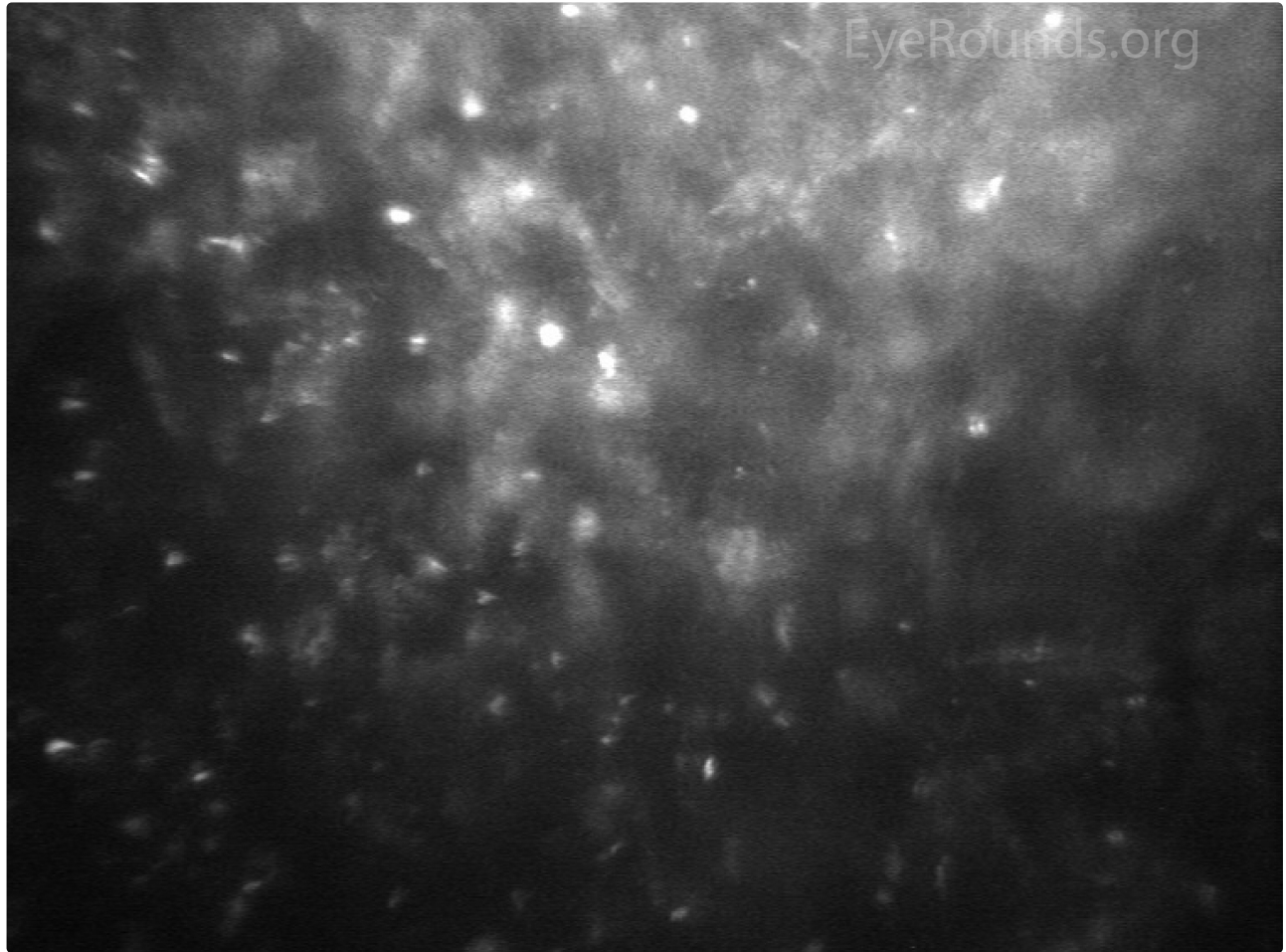


Figure 3: Confocal microscopy of the patient in Figure 1 demonstrating high-contrast round objects consistent with Acanthamoeba cysts and irregular forms suggestive of Acanthamoeba trophozoites

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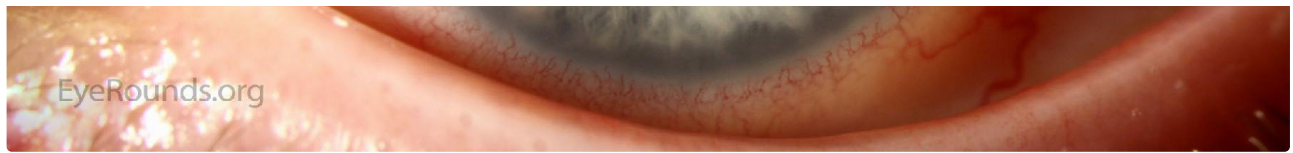


Figure 4: Epitheliitis with marked radial perineuritis secondary to Acanthamoeba infection.

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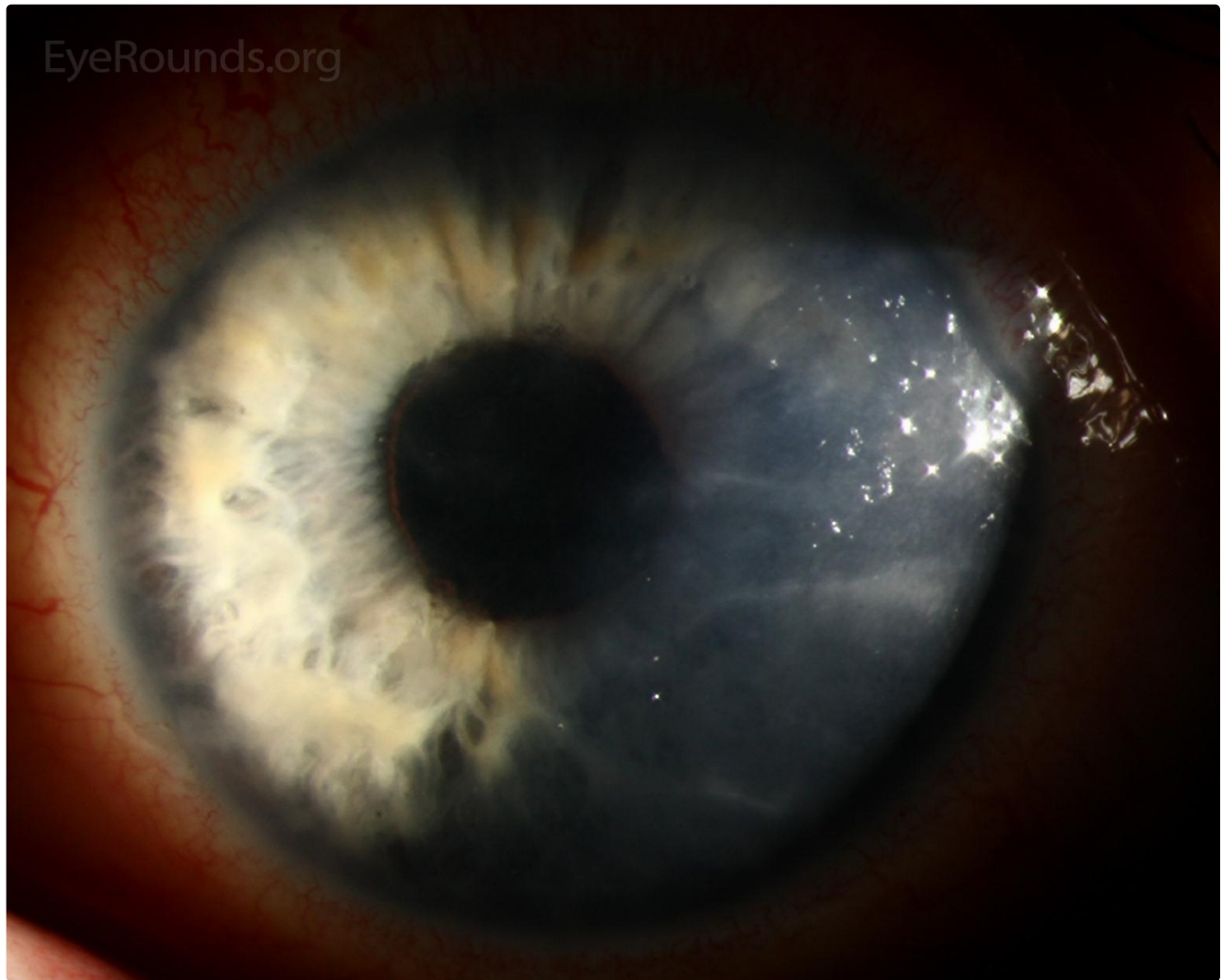


Figure 4b: Epitheliitis with marked radial perineuritis secondary to Acanthamoeba infection.

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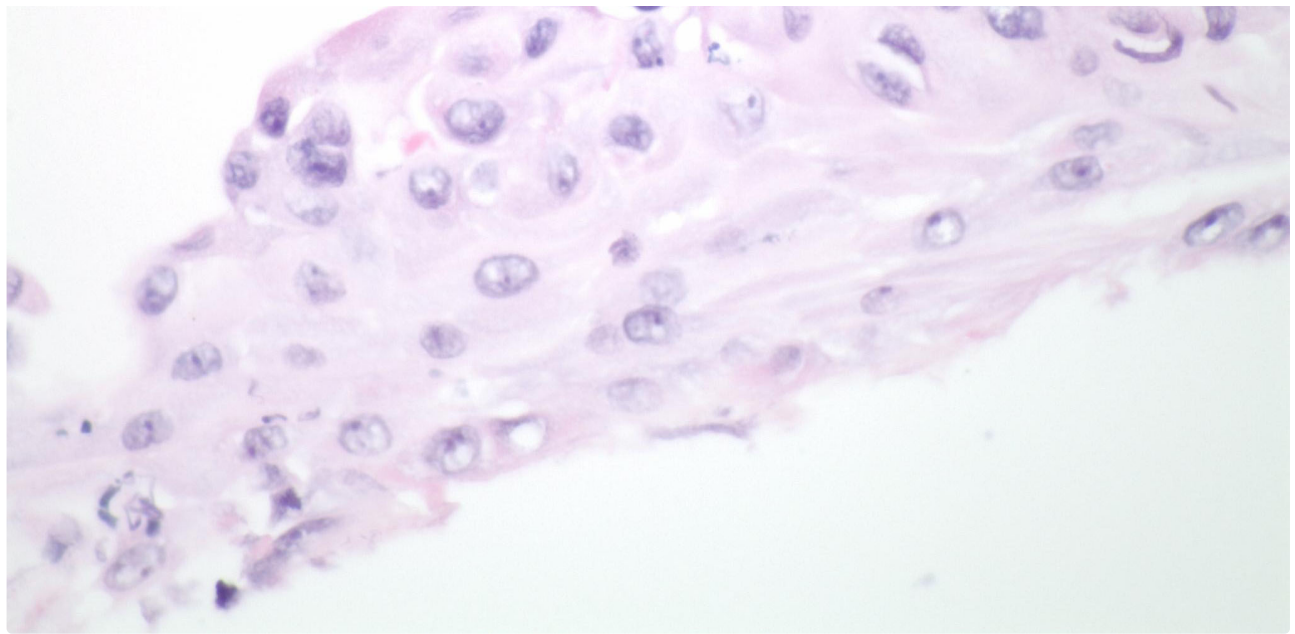


Figure 5: 300x magnification of the corneal epithelium in a patient with Acanthamoeba keratitis. H&E stain demonstrates a classic example of the double-walled cyst structure of Acanthamoeba.

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Figure 6: Intra-stromal Acanthamoeba cysts and trophozoites visible on H&E stain.

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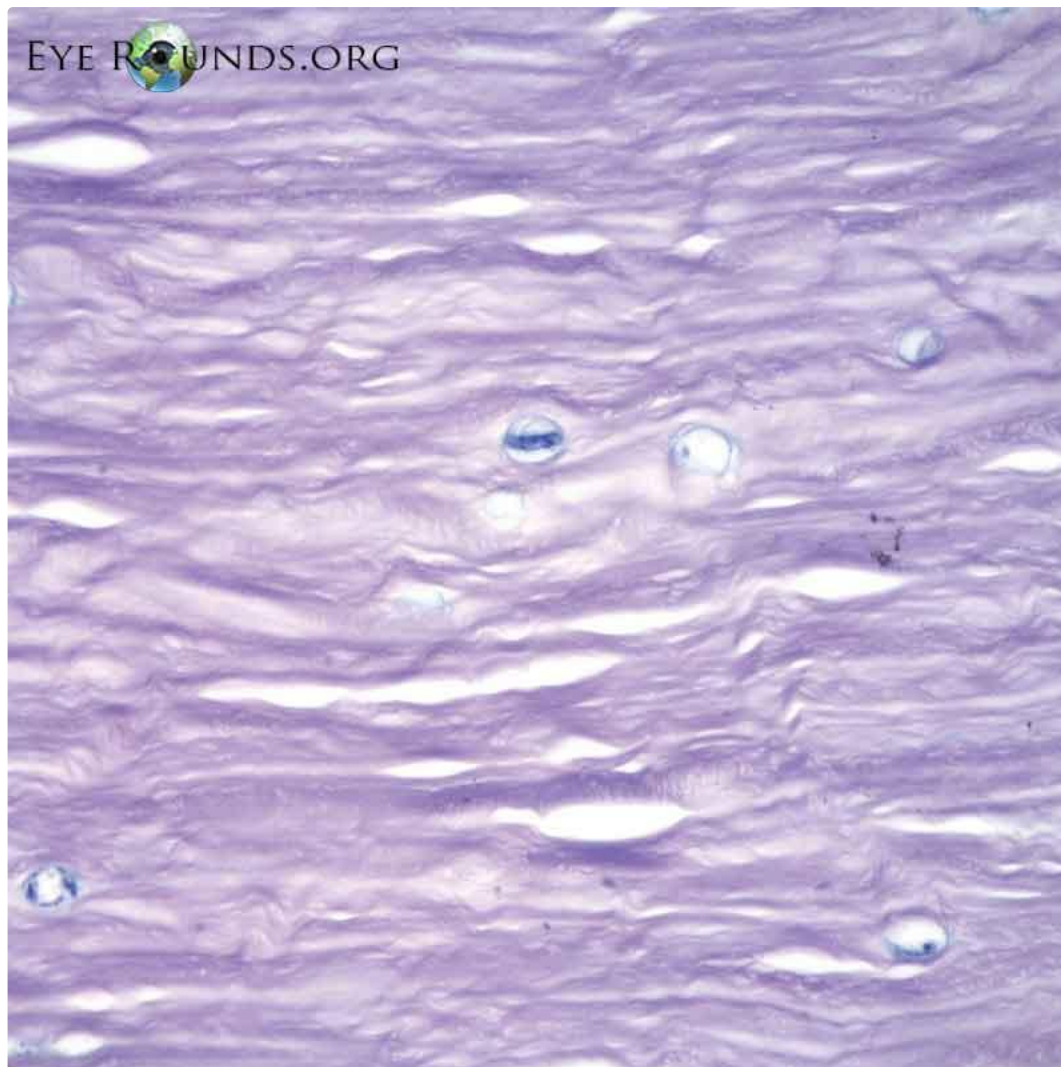


Figure 7: Protozoa visible on Wright-Giemsa stain.

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Reference:

Krachmer, Jay H., Mark J. Mannis, Edward J. Holland. Cornea. St. Louis: Mosby, 2011.

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