

## Posterior Polymorphous Corneal Dystrophy (PPMD)

Category(ies): Cornea

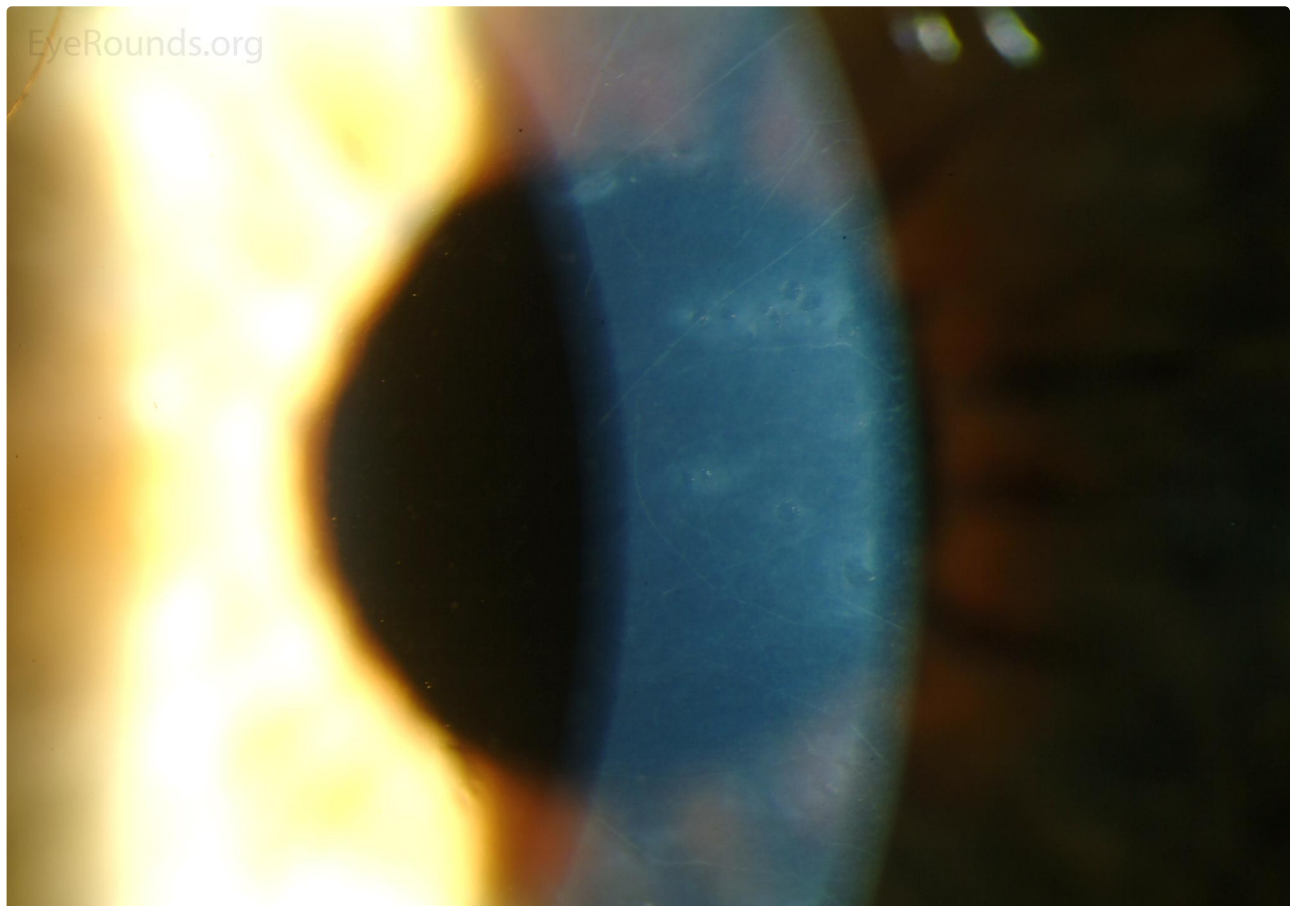
Contributor: [Jesse Vislisel, MD](#)

Posterior polymorphous corneal dystrophy (PPMD, PPCD) is a rare, bilateral, autosomal dominant inherited corneal dystrophy. The corneal abnormality in PPMD occurs at the level of Descemet's membrane and endothelium, and rarely will result in corneal edema or elevated intraocular pressure. The three main patterns in which PPMD may present include endothelial vesicle-like lesions, band lesions, and diffuse deep stromal opacities.

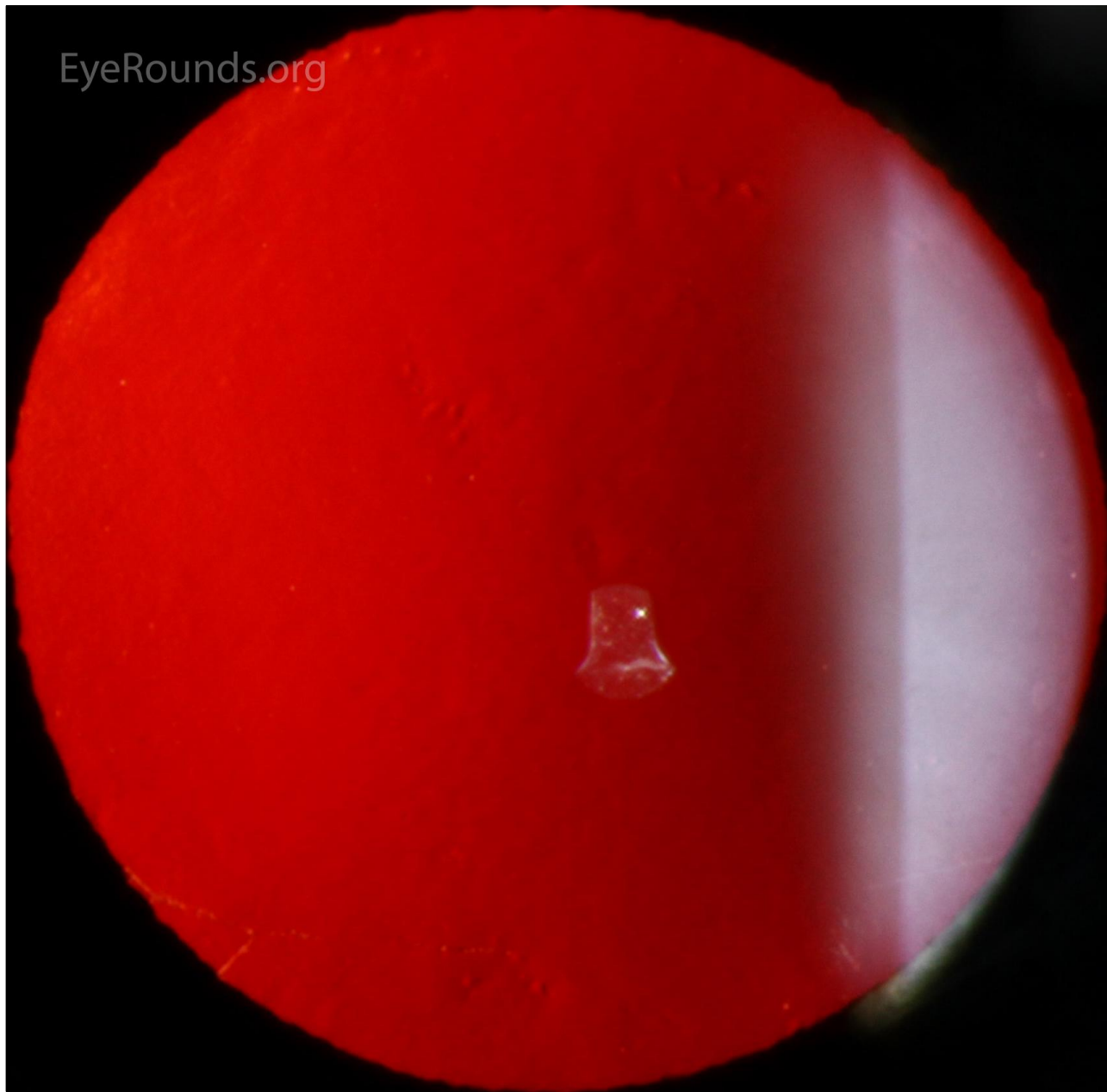
### Figure 1: Vesicle-like lesions in PPMD

Contributor: [Jesse Vislisel, MD](#) and [Kenneth M. Goins, MD](#) Photographer: [Brice Critser, CRA](#) <sup>March 2, 2015</sup>

Vesicle-like lesions at the level of Descemet's membrane and endothelium are the hallmark lesions of PPMD. They appear as transparent cystic lesions surrounded by gray halos and commonly occur in lines or clusters. The figures below demonstrate the classic appearance of these lesions with direct illumination, retroillumination, and on specular microscopy.



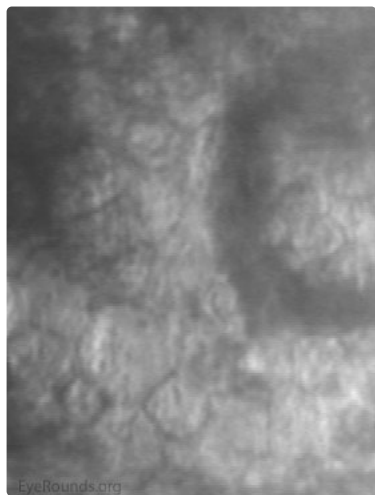
Classic appearance of these lesions with direct illumination



Classic appearance of these lesions with retroillumination

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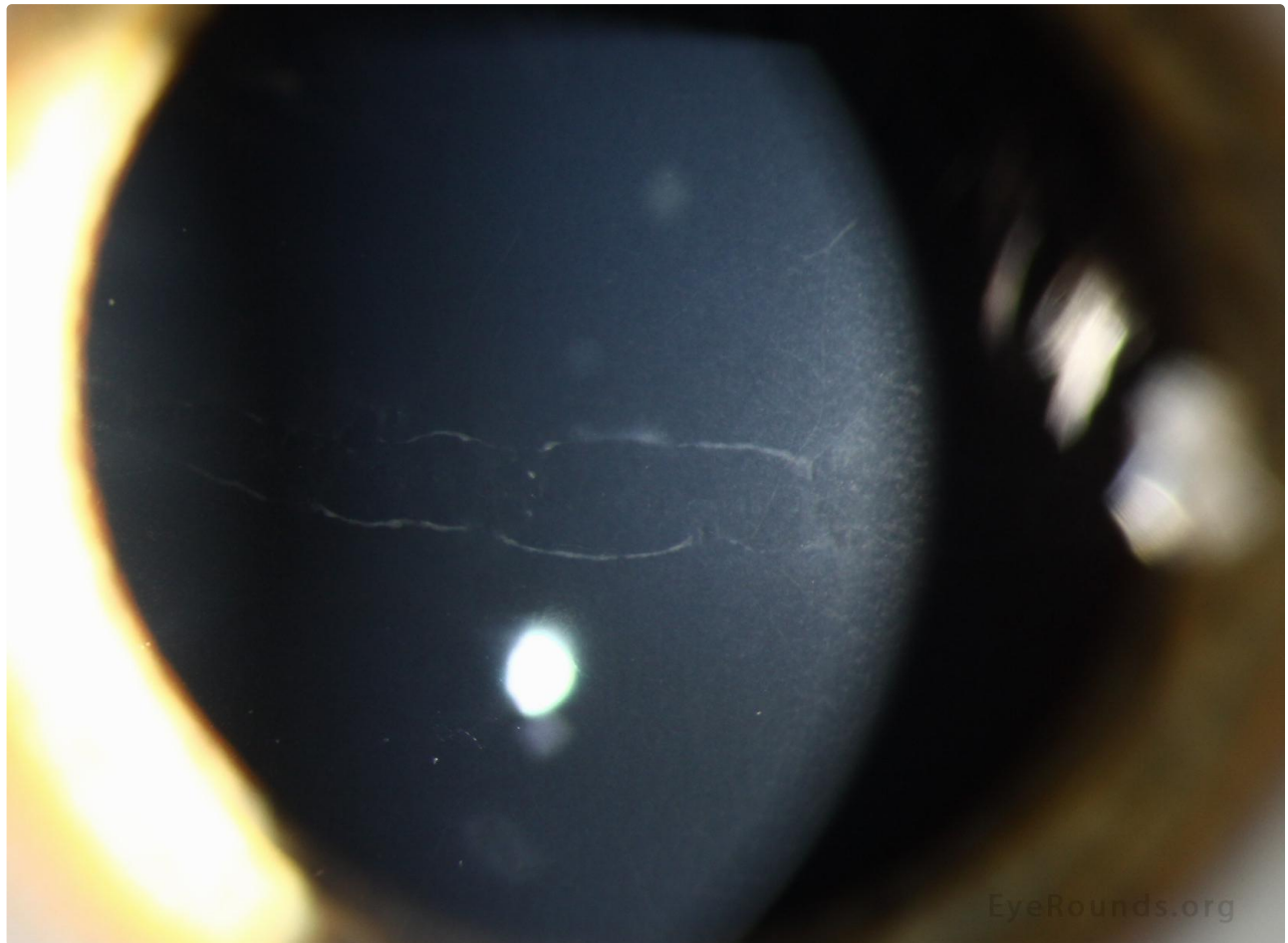
Classic appearance of these lesions with specular microscopy

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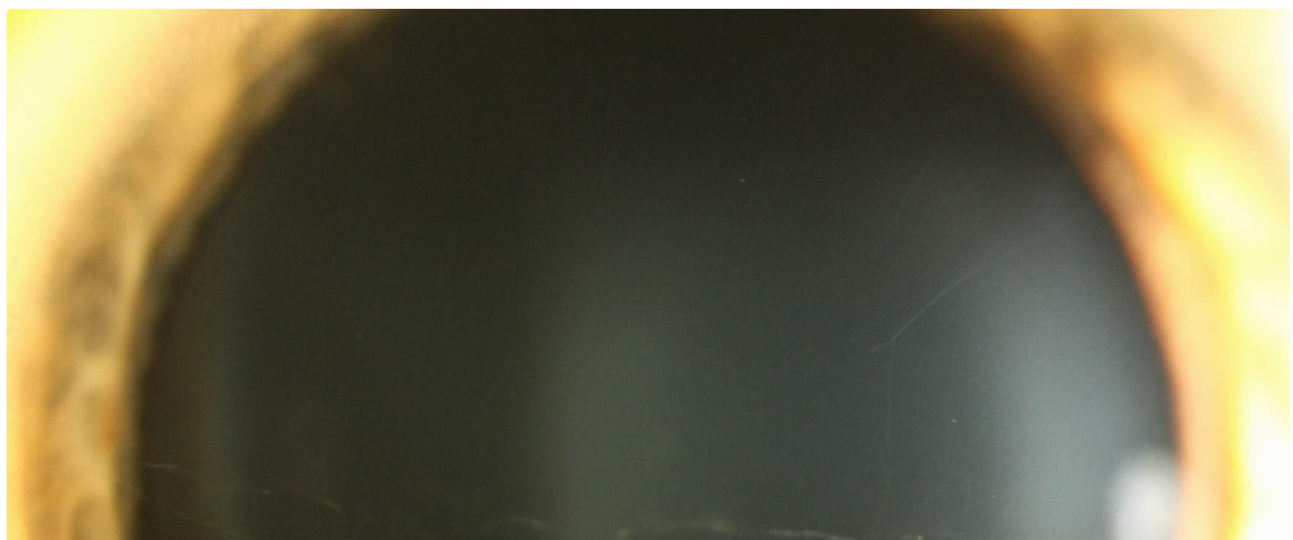
## Figure 2: Band lesions in PPMD Contributor: [Jesse Vislisel, MD](#) and [Kenneth M. Goins, MD](#)

**Photographer:** Brice Critser, CRA

Band lesions, sometimes called "snail tracks," are classically horizontal lesions with parallel, scalloped, non-tapering edges at the level of the posterior cornea. Below are examples of these lesions in 2 separate patients.



Patient 2a



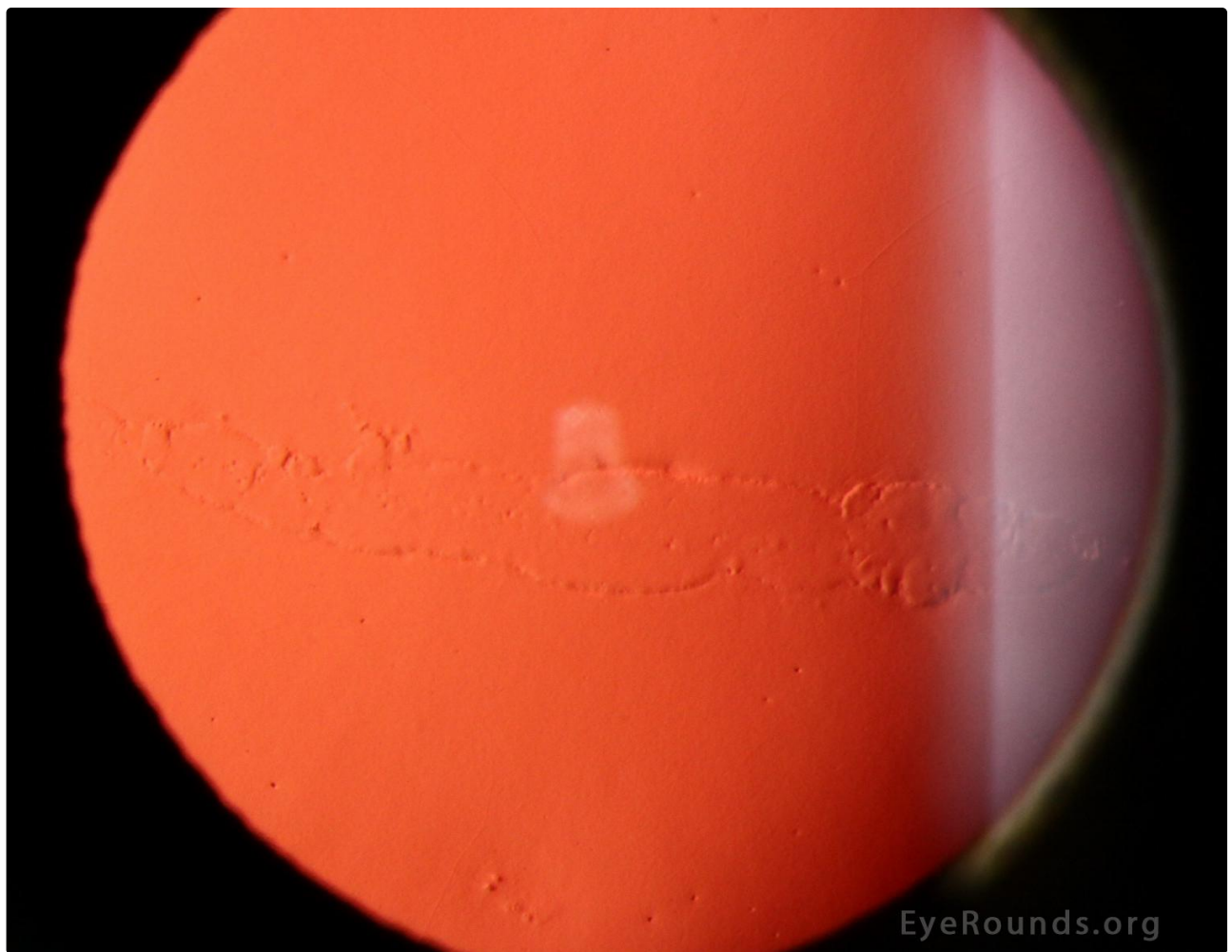


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Patient 2a

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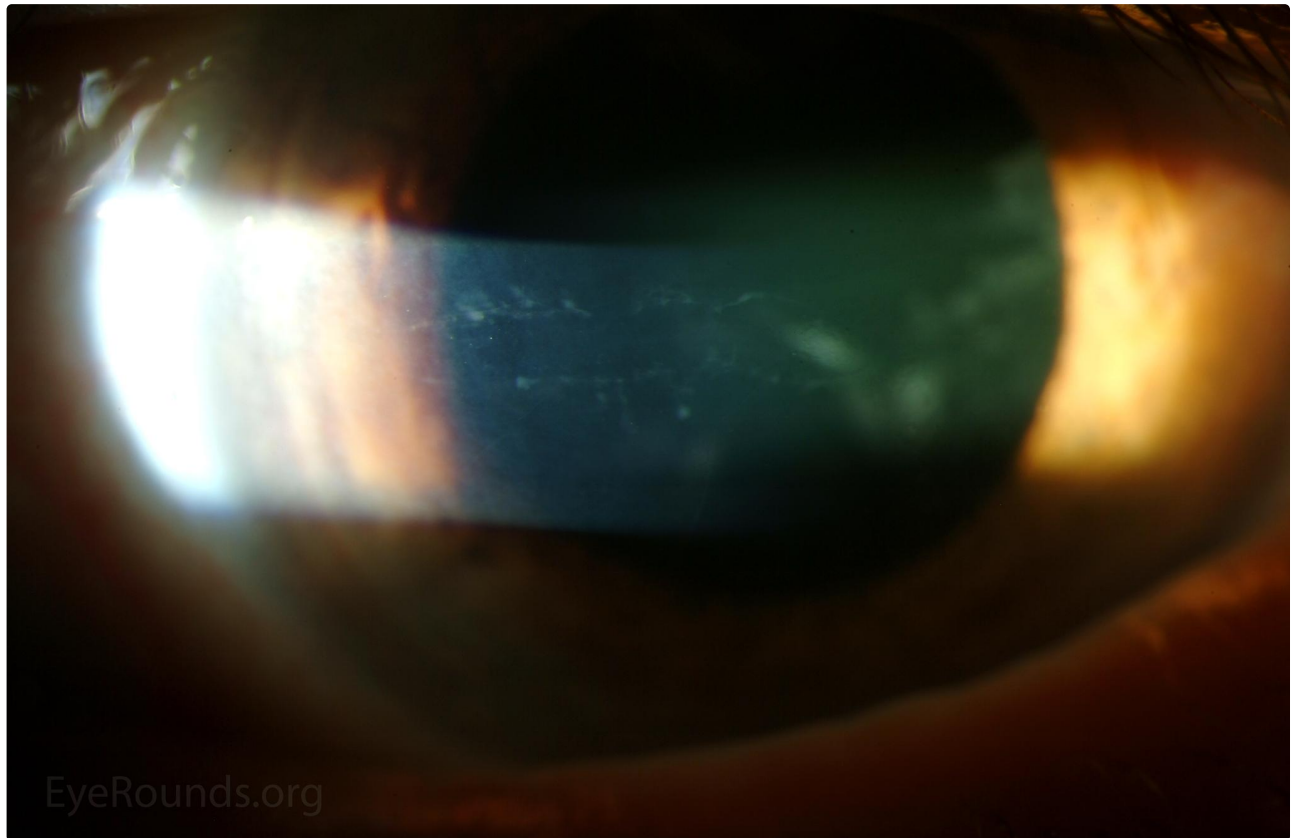




Patient 2a

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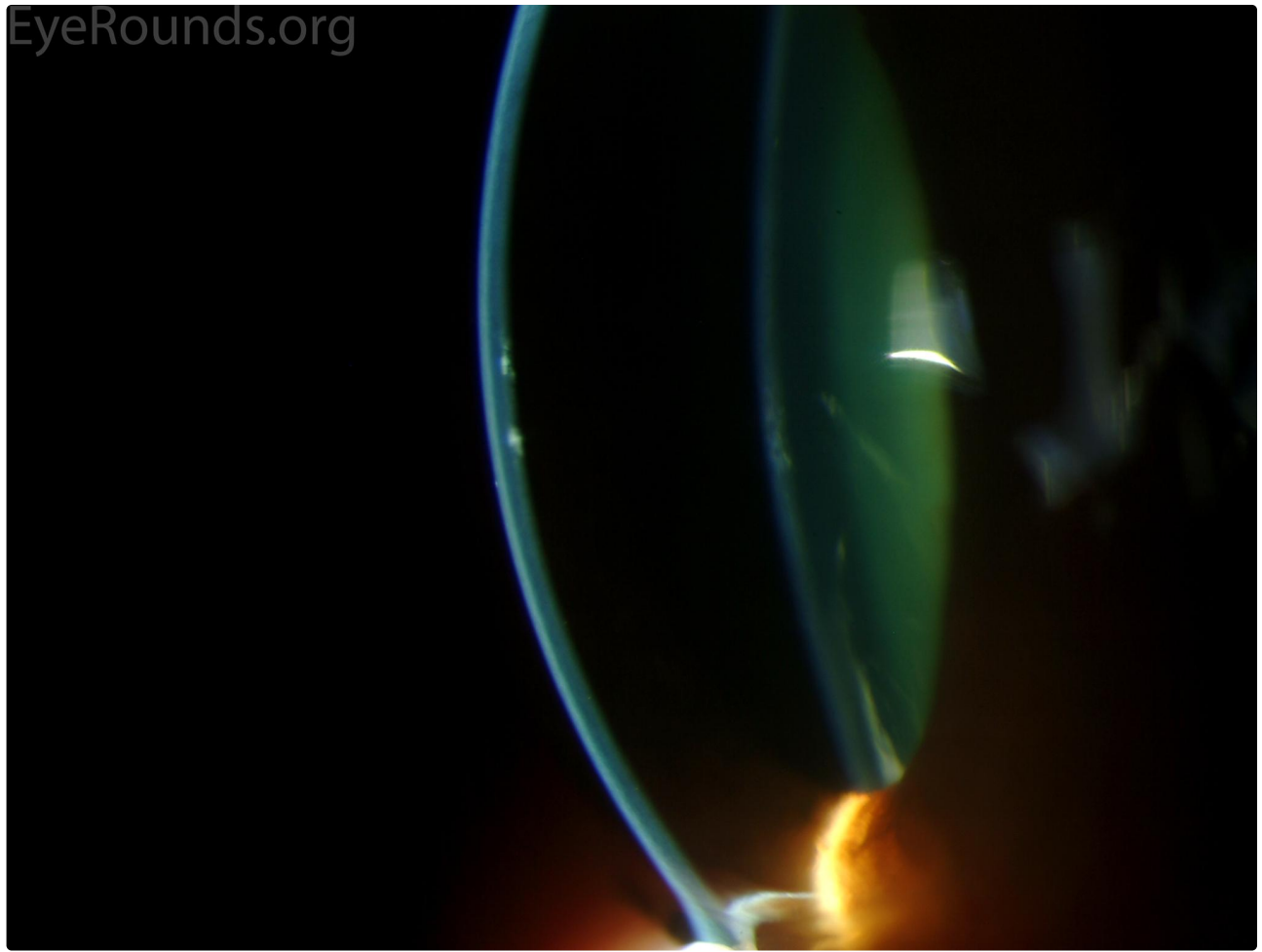
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Patient 2b

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Patient 2b

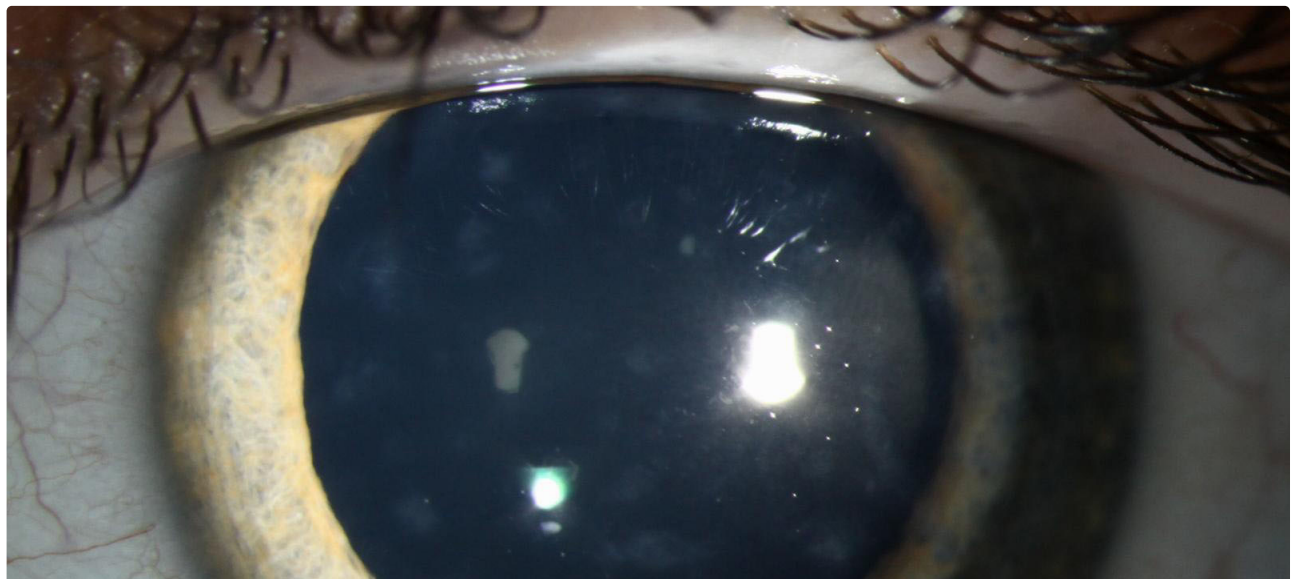
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### Figure 3: Diffuse posterior stromal opacities in PPMD

Contributor: [Jesse Vislisel, MD](#) and [Kenneth M. Goins, MD](#) Photographer: Brice Critser, CRA

PPMD may present with diffuse, gray-white opacities at the level of Descemet's membrane. There may be deep stromal haze adjacent to the lesions. Below are slit lamp photographs of two patients with such lesions.

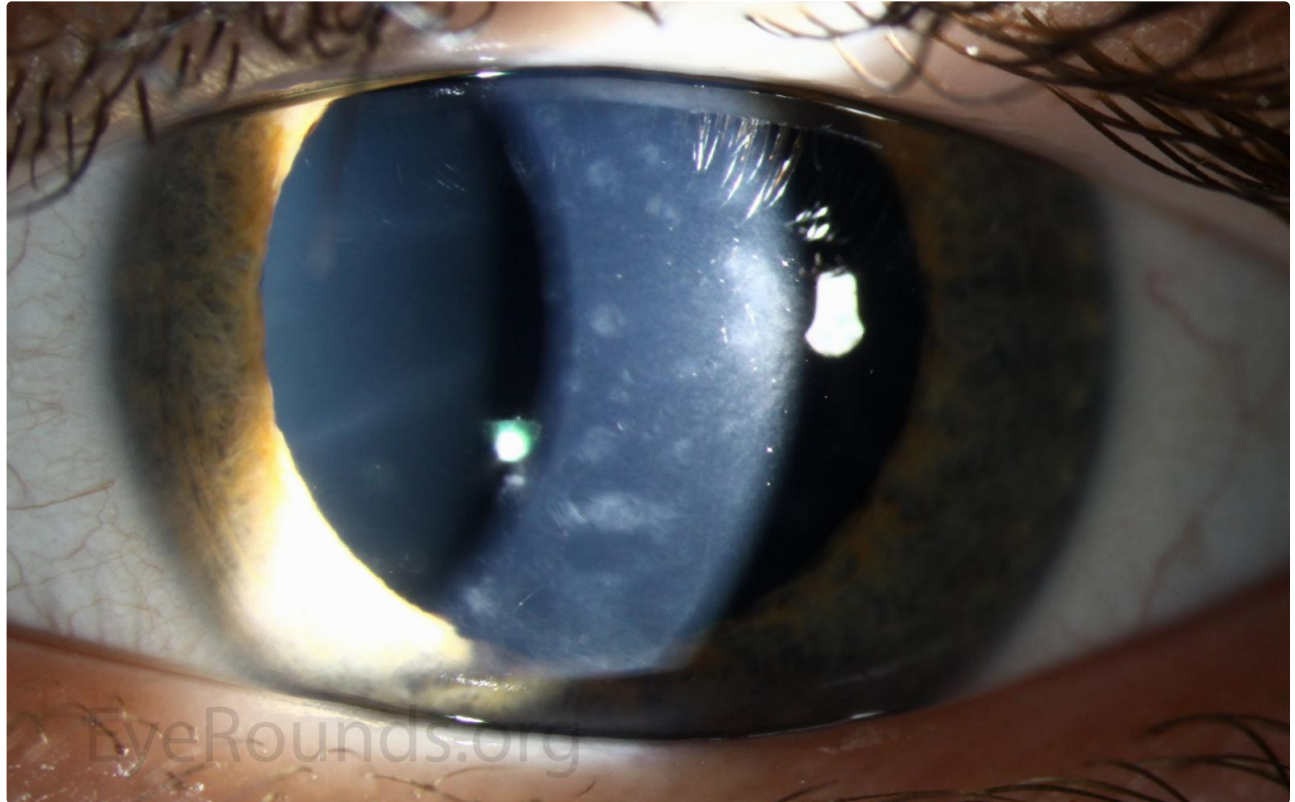




Patient 3a

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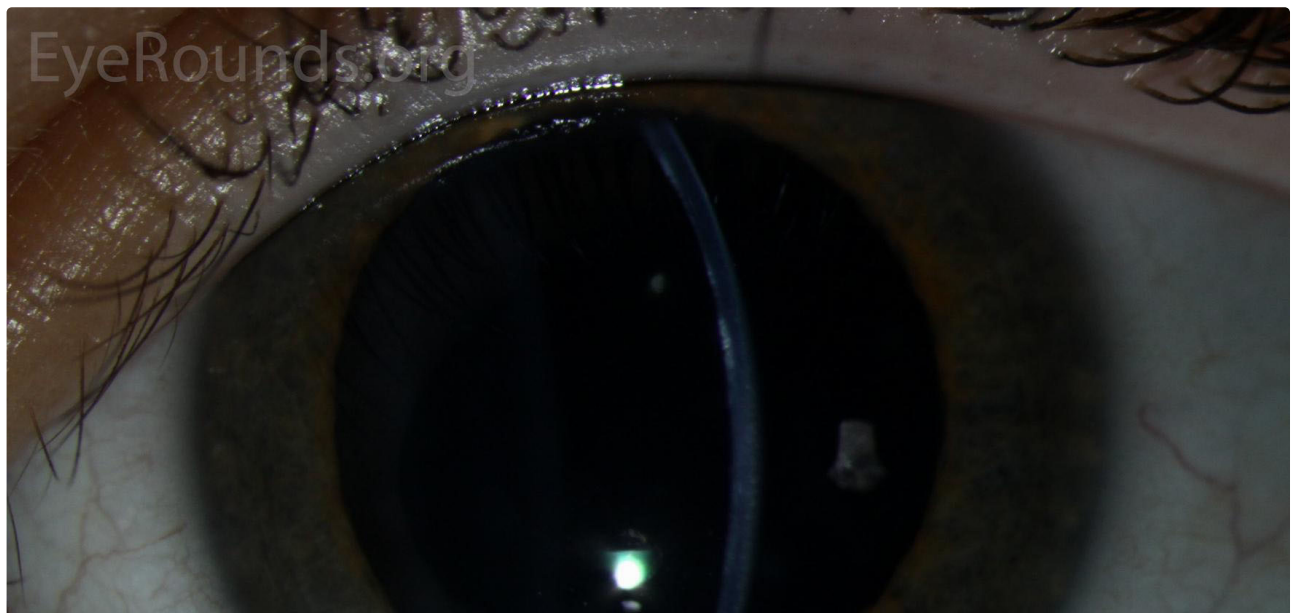
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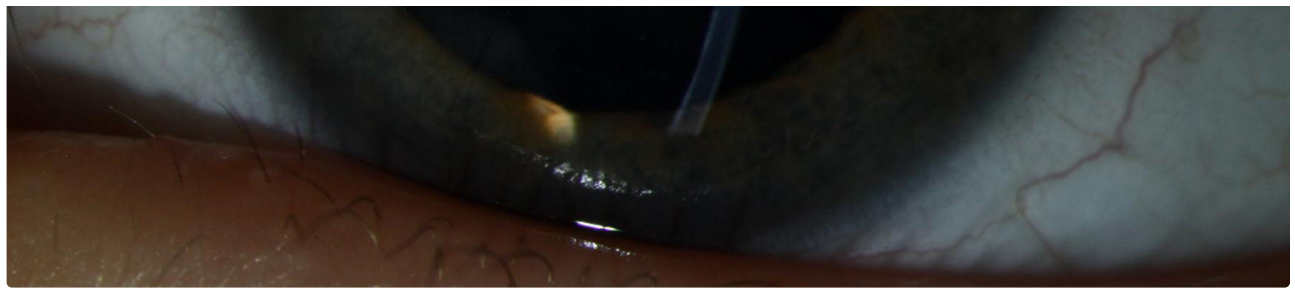
Patient 3a

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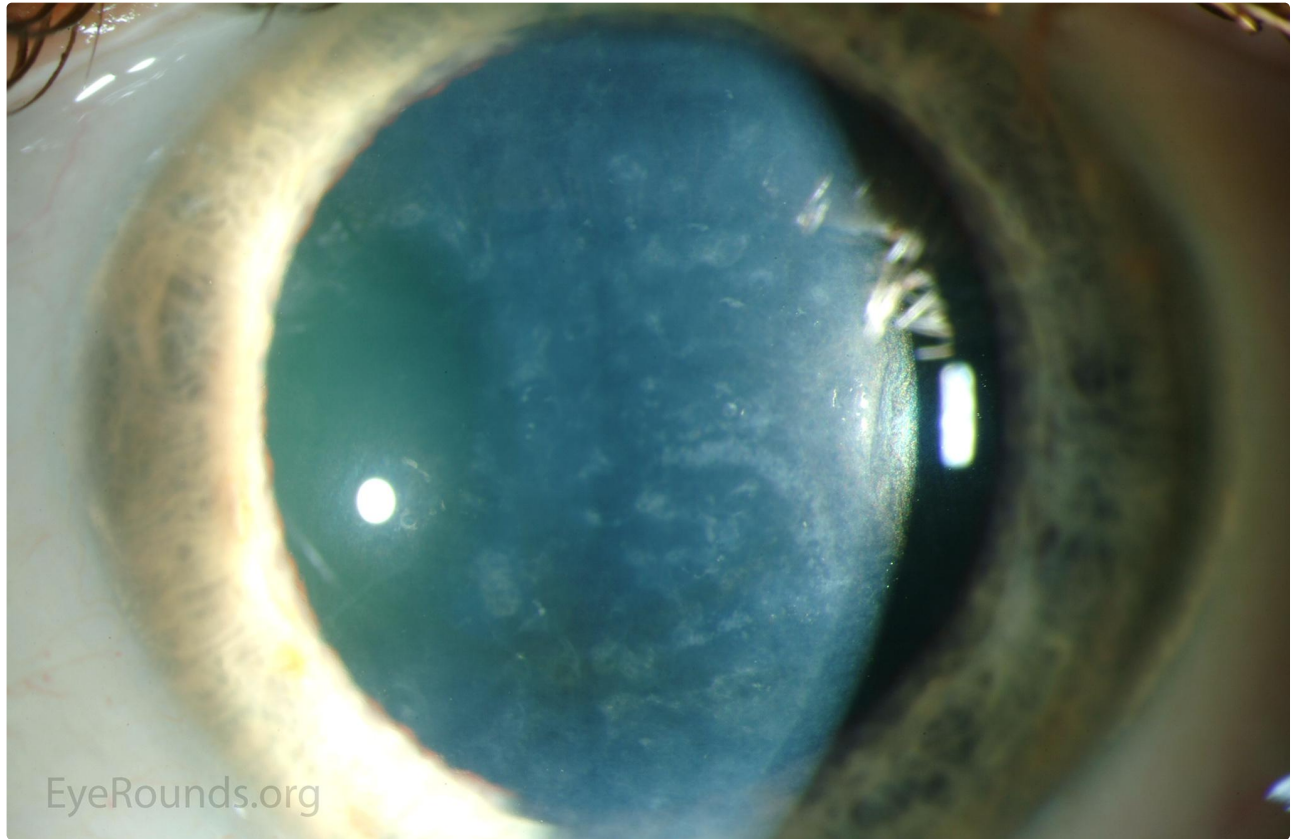




Patient 3b

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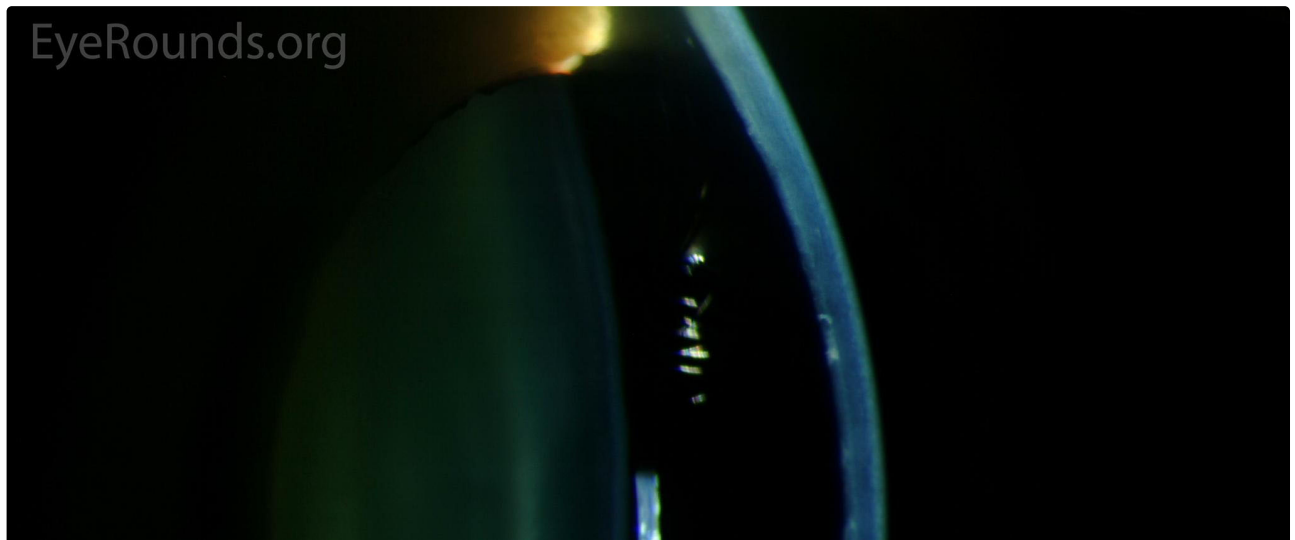
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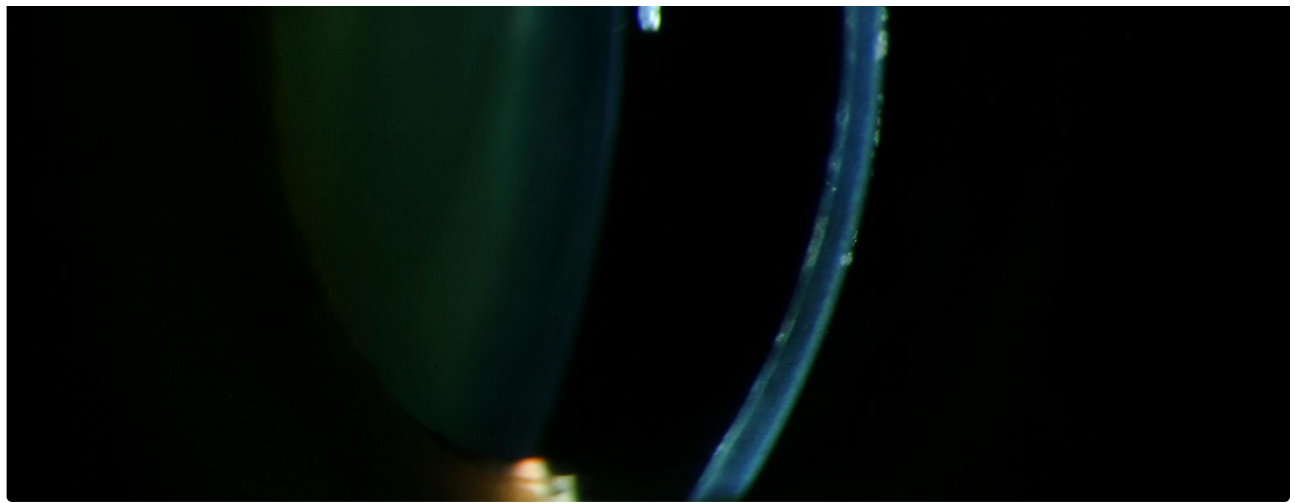
Patient 3b

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Patient 3b

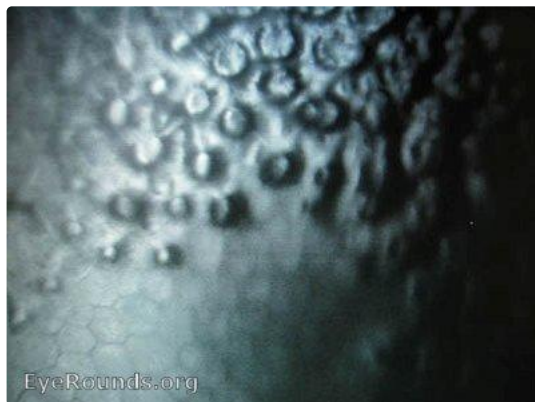
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## Figure 4: Confocal microscopy of affected endothelium in PPMD

**Contributor:** Andrew Doan, MD, PhD, University of Iowa

Confocal microscopy of the endothelium in PPMD shows epithelial-like cells. Normal endothelial cells are hexagonal and flat.



Patient 4

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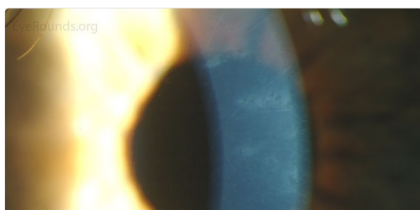
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