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Congenital lenticular pigmentation: Epicapsular stars

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Description

A 26-year-old female with no relevant past medical history presented for comprehensive eye exam and was observed on slit lamp to have pigment deposits on the anterior capsule of the crystalline lens in the right eye. The pigment was brown, opaque, star-shaped, and clustered in the center, superior region of the anterior lens capsule (Figure 1). She is asymptomatic with past ocular history of hyperopia. She denies previous history of ocular trauma, surgery, inflammation, nor use of topical and systemic medications. On exam, her best corrected visual acuity was 20/20 in both eyes and intraocular pressure was 17/18. Her slit lamp exam and fundus exam were otherwise normal bilaterally with no signs of other pigment disposition or intraocular inflammation.

Anterior lens surface pigmentation has been observed post ocular trauma and in disorders such as pigment dispersion syndrome, pseudoexfoliation syndrome, intraocular inflammatory conditions like anterior uveitis, and in relation to some systemic medication usage such as antipsychotics [1]. If untreated, such ocular disorders can lead to complications such as secondary glaucoma and macula edema with the potential for permanent vision loss [2,3]. However, our patient is asymptomatic and presented with incidental findings of isolated epicapsular stars, hence, a diagnosis of unilateral congenital lenticular pigmentation was made. Epicapsular stars is a rare, benign condition associated with persistence of the tunica vasculosa lentis after embryogenesis [4]. Usually, no medical or surgical interventions are indicated. The condition is not associated with progressive visual impairment. Rarely, a significant volume of centrally located epicapsular stars may lead to the development of amblyopia without early surgical intervention [5]. Awareness of this benign condition will help to prevent unnecessary frequent monitoring and patient anxiety. A thorough initial exam is essential to avoid overlooking underlying conditions.

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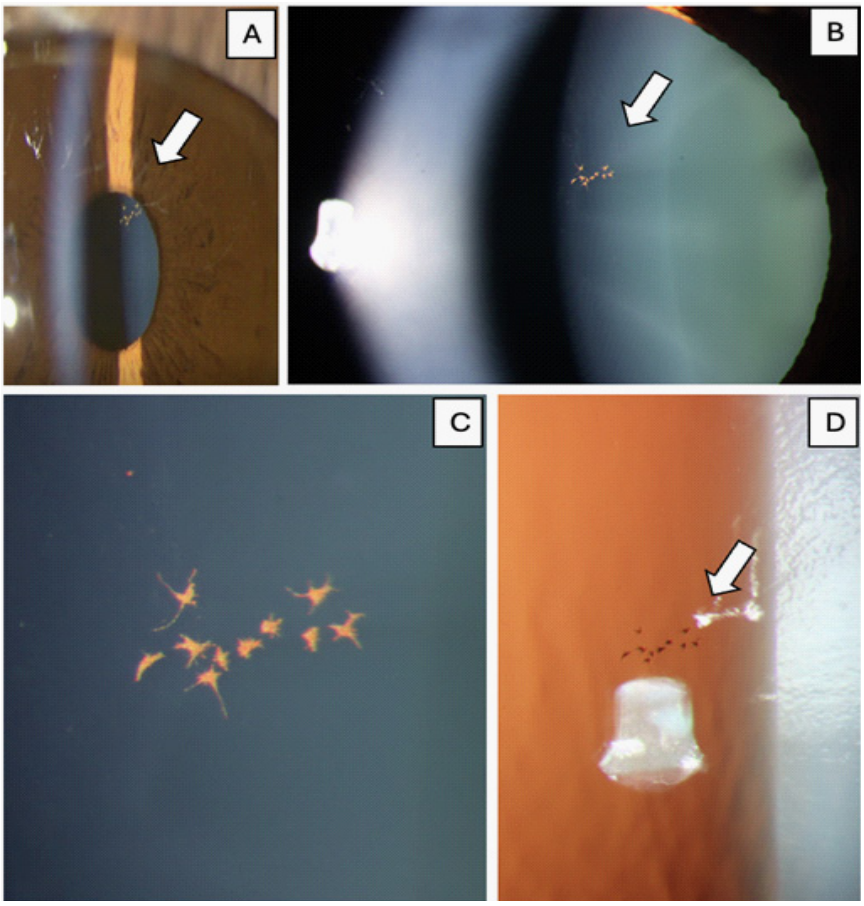

Figure 1: Epicapsular stars on anterior lens capsule. Lenticular pigment deposits with undilated pupil.
(A) Imaged using the Haag-Streit IM 910 slit lamp. Perifoveal, brown, and stellate deposits.
(B,C) And retro-illumination of opaque deposits.
(D) Seen on dilated fundus exam imaged using the Haag-Streit BX 900 slit lamp.

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