Keratoconus Clue: Connective Tissue Disorders

Collagen disorders

Because the cornea is composed of collagen, keratoconus may be a manifestation of an underling systemic condition.[1]

Ehlers-Danlos syndromes (EDS)

It has been recently reported that patients with EDS may have a genetic predisposition to keratoconus; the association between the two conditions has been previously suggested.[2]

Marfan syndrome

Marfan syndrome is responsible for reduced collagen strength affecting the eyes, bones and joints, skin, lungs, and heart. Patients with Marfan syndrome may have corneas that are soft and weak.[3]

"Attention to patient history and reports on connective tissue disorders should alert you to be attentive for signs of ocular manifestations including keratoconus."

—Dr Schroeder Swartz, iDetective

References

1. Beene LC, Traboulsi EI, Seven I, et al. Corneal deformation response and ocular geometry: a noninvasive diagnostic strategy in Marfan syndrome. *Am J Ophthalmol*. 2016;161:56-64. **2.** Fransen E, Valgaeren H, Janssens K, et al. Resequencing of candidate genes for keratoconus reveals a role for Ehlers–Danlos Syndrome genes. *Eur J Hum Genet.* 2021;29(12):1745-1755. **3.** Kara N, Bozkurt E, Baz O, et al. Corneal biomechanical properties and intraocular pressure measurement in Marfan patients. *J Cataract Refract Surg.* 2012;38(2):309-314.

GLAUKOS

It's time to **#FollowTheClues**

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