Teaching Video NeuroImage: Tadpole Pupil

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A 27-year-old healthy woman reported short episodes (15-30 seconds) of unilateral blurred vision in the left eye, during which an irregular shape of her left pupil was observed. She had no other symptoms. At presentation pupils were equal in size, reactive to light and there was no dilation lag, no eyelid ptosis and eye motility was full. Diagnosis of tadpole pupil was made based on photographs taken by the patient herself (Figure) (Video1). Because of a close association with Horner’s syndrome, sympathetic denervation hypersensitivity has been considered as an underlying mechanism. However, pharmacologic testing was negative (both cocaine 10% and apraclonide 0.5%).

WNL-2022-201370_slides -- http://links.lww.com/WNL/C463
WNL-2022-201370_vid1 -- http://links.lww.com/WNL/C464
Figure. The left eye of the patient during an episode of Tadpole pupil. We can see an irregular, tear shaped deformation of the pupil.

Video 1. The left eye of the patient during an episode of Tadpole pupil. We can see an irregular, tear shaped deformation of the pupil. This episode lasts about 30 seconds with the pupil returning to a normal shape at the end of the video.