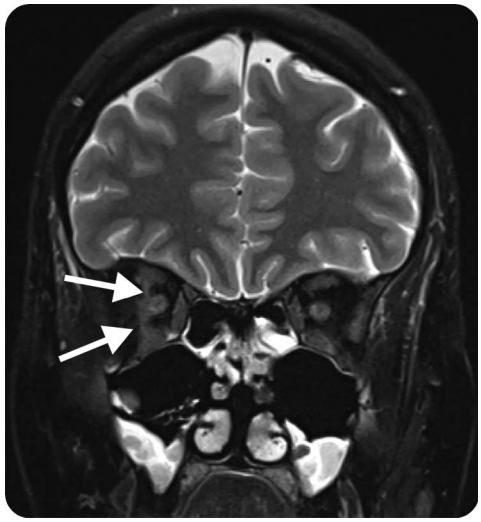
Strabismus from supernumerary extraocular muscle restriction

Figure 1 External photographs demonstrating extraocular motility

External photographs of the patient in primary position, right gaze, and left gaze, demonstrating very subtle limitation to abduction of the right eye and inability to completely bury sclera.

Figure 2 Isointense supernumerary extraocular muscle band



Coronal T2-weighted fat-saturated orbital MRI demonstrating an isointense supernumerary extraocular muscle band (arrows), posterior to the right globe, bridging the right superior rectus muscle and right inferior rectus muscle.

A 39-year-old Caucasian woman, right-handed and myopic, complained of binocular horizontal diplopia, which was worse at distance than near. Examination revealed a −1 abduction limitation of the right eye (figure 1). There was a 10-prism diopter esophoria in primary gaze that increased to an esotropia of 25 prism diopters in right gaze, and was 12 prism diopters in left gaze. An MRI of the brain and orbits with and without contrast revealed an isointense thin tissue band posterior to the right globe connecting the superior and inferior rectus muscles (figures 2 and 3). Strabismus from restrictive supernumerary extraocular muscle bands may be misinterpreted as sixth nerve palsies.[1,2]

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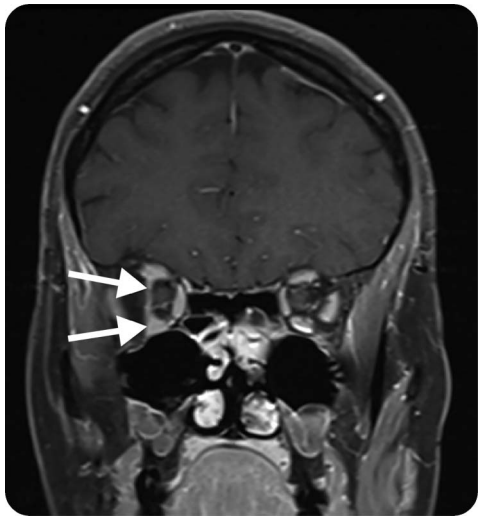
Figure 3 Robust and symmetric enhancement of extraocular muscles and supernumerary extraocular muscle band



Coronal T1-weighted fat-saturated MRI post-gadolinium contrast demonstrates robust and symmetric enhancement of the extraocular muscles and supernumerary extraocular muscle tissue (arrows).

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