LATE SPONTANEOUS RESOLUTION OF CONGENITAL BROWN SYNDROME

To the Editor: Dr. Lambert’s report1 of a child whose Brown syndrome resolved over a 20-year period of time not only confirms what others have reported but also may contain information that could provide a valuable insight into the etiology. I reported a case of acquired bilateral Brown syndrome that was associated with a bilateral increase in the distance from the annulus of Zinn to the trochlea, compared to age-matched controls.2 In that paper it was suggested that a relative decrease of this distance over time could explain how Brown syndrome might resolve “spontaneously.” It is possible that the computed tomography scan of Dr. Lambert’s patient could be reformatted to allow for this distance to be measured and then compared with age-matched controls. That distance could be measured again—now some 20 years later—and compared with age-matched controls to determine whether the relationship to age-matched controls has changed, possibly providing some insight into the mechanism for this spontaneous resolution. There are a number of us out there who believe that some superior oblique muscle dysfunction could be explained by a “mismatch” of superior oblique tendon length and orbital geometry. Hopefully, there are other similar cases out there that could also be reexamined with this thought in mind.

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References

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REPLY

To the Editor: The pathophysiology underlying the spontaneous resolution of congenital Brown syndrome1 has not been established. Abrams2 has hypothesized that spontaneous resolution of Brown syndrome may occur in some instances due to a reduction in the distance between the trochlea and the annulus of Zinn as the orbit grows. This may result in increased laxity of the superior oblique tendon, thereby allowing it to pass through the trochlea normally. This is an interesting hypothesis that could potentially be studied empirically with serial high-resolution orbital scans. The reported patient underwent computed tomography (CT) of the sinuses at the age of 3 years and magnetic resonance imaging of the brain at 20 years. On the CT scan, the distance between the trochlea and the annulus of Zinn was 3.3 cm (Figure 1). This value is similar to the normative data reported by Abrams for 3-year-old girls (3.2 cm). In his case report, Abrams2 reported a 3-year-old girl with progressive frontal bossing and acquired Brown syndrome in whom the distance between the trochlea and the annulus of Zinn was 4.3 cm. This distance is greater than the distance between the trochlea and the annulus of Zinn we measured in a normal 9-year-old patient (3.9 cm) and a normal adult (3.9 cm) and could possibly explain why Abrams’s patient developed Brown syndrome. Unfortunately, we did not have access to the magnetic resonance scan for our patient when she was 20 years of age to compare to the CT scan performed when she was 3 years of age.

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