Fig. 1.—A, T1-weighted axial MR image (850 msec TR, 30 msec TE) was initially interpreted as normal, but some asymmetry was seen retrospectively in cerebellopontine angle cisterns. B, T2-weighted axial MR image (3500 msec TR, 100 msec TE). Minimal asymmetry of internal auditory canals was believed to be normal. C, CT air cisternogram. Small acoustic schwannoma extends minimally into cerebellopontine angle cistern. D, T1-weighted coronal MR image (800 msec TR, 40 msec TE) after cisternogram. Mass (arrowhead) in region of right porus acusticus correlates with location of tumor in C and was verified surgically.

In conclusion, we believe that in the evaluation of sensorineural hearing loss by MR, both coronal and axial thin sections (5 mm or less) are essential. In addition, optimum imaging parameters must be used, particularly a strongly T1-weighted sequence. There is little doubt that with further improvement in MR technology, especially surface-coil imaging, it will become the imaging method of choice. For the present, CT air cisternography remains the gold standard in the evaluation of possible acoustic neurinomas.

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Radiographic Findings in Moebius and Moebius-like Syndromes

Moebius syndrome is a congenital nonprogressive neuromuscular disorder characterized by bilateral facial and lateral rectus paralysis. Radiographic studies are useful in evaluating the syndrome, especially in documenting any associated malformations that might indicate that the Moebius sequence is part of a more extensive central nervous system process that may not be clinically evident during the neonatal period. We are reporting the clinical and radiographic findings in a case of classic Moebius syndrome and in a case of Moebius-like syndrome.

Case Reports

Case 1

This male infant born of an uncomplicated term pregnancy and vaginal delivery had medial deviation of both eyes, absent facial
Discussion

Moebius syndrome classically presents with congenital nonprogressive bilateral oculofacial diplegia, although the paralysis can be unilateral and incomplete and may involve other cranial nerves, such as in our first case. Moebius syndrome may also be associated with micrognathia, hypoplasia of the tongue, branchial cleft musculature defects, and the Poland sequence (absent pectoralis muscle, syndactyly, and limb reduction defects) [1–3]. Most patients with Moebius syndrome will have a normal CT head scan except for medial deviation or inward gaze of the eyes as a result of the lateral rectus paralysis, as seen in our first case. CT and cranial sonography are particularly valuable in identifying any other concomitant brain malformations that can occur in a patient who presents with a Moebius syndrome such as in our second case. A dysplastic, small brainstem and cerebellum resembling the Dandy-Walker variant malformation as in our case 2 was described in one other report [4]. The radiographic evaluation of patients with Moebius syndrome, which is most often normal, helps to exclude possible treatable or progressive disorders such as infarction, hemorrhage, trauma, infection, hydrocephalus, or tumor that could mimic a Moebius-like syndrome. We believe careful radiologic workup with particular attention to the brainstem, cerebellum, base of the skull, and facial musculature, with appropriate radiographic evaluation of the extremities when indicated, is warranted in Moebius syndrome. High-quality CT scanning and sonography are two noninvasive complementary methods ideal for the initial evaluation of these patients.

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