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CASE REPORT

Late discovery of infantile facial nerve schwannoma in a 10-year-old girl

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Summary Facial nerve paralysis and paresis are uncommon entities in the pediatric population. In addition, facial nerve schwannoma as a cause of paralysis and paresis in children is exceeding rare. We describe a case of a 10-year-old girl who presented to our institution with an infantile facial nerve schwannoma. We discuss the clinical presentation, radiologic findings and management of this case highlighting the pitfalls in diagnosis and the importance of childhood photographs in establishing time of onset.

1. Introduction

Facial nerve schwannoma is an uncommon cause of facial paralysis, particularly in the pediatric setting. They account for <1% of all intrapetrous tumors with an estimated prevalence of 0.15—0.8% [1—3]. The incidence in children is even lower. Individual experience with facial nerve schwannomas is small, and the largest reported series to date is comprised of 24 cases [4,5]. Although clinical presentation can be diverse, facial nerve dysfunction is the most common presenting feature of these slow-growing tumors [3,4,6]. Schwannomas can occur at any part along the course of the facial nerve and may involve a number of segments [7]. Expectant management is often recommended in the treatment of facial nerve schwannoma particularly in the setting of preserved function. We present a case of delayed diagnosis in a child with an infantile facial nerve schwannoma.

2. Case presentation

A 10-year-old Caucasian female was referred to the Hospital for Sick Children, Toronto, Canada for the

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investigation of facial asymmetry. This was first noted by the family at age 9. They described a recent but gradual onset and denied any associated otologic or neurologic symptoms. Initial examination was reported to be consistent with a left central facial weakness with sparing of upper face muscles. Initial magnetic resonance imaging (MRI) was performed and found to be normal. The family was lost to follow-up for 1.5 years and at this interval they returned with concerns of ongoing but reportedly improved left facial weakness.

At the time of follow-up, clinical examination revealed lower motoneuron weakness of the facial nerve in all major muscle groups, including orbicularis oculi and frontalis muscles, graded as a House-Brackman III [8]. Complete otolaryngologic and neurologic exam revealed no additional abnormalities. Audiometric assessment revealed normal pure tone thresholds and middle ear immitance. Nerve conduction of the facial nerve demonstrated decreased amplitude of the compound action potentials on the diseased side, with normal latency and morphology.

In contrast to the 2-year history of left facial weakness reported by the child's mother, review of photographs dating back to infancy revealed an obvious long-standing left lower facial nerve weakness (Fig. 1).

CT and MR imaging were repeated and demonstrated enlargement of the facial nerve and its bony canal from the geniculate ganglion, throughout the temporal component to near the end of the vertical segment of the nerve (Figs. 2 and 3). Retrospective review of the MRI performed at presentation demonstrated this same lesion with no interval change in the size or extension of the lesion.

In this case, clinical and radiological evidence suggest a diagnosis of facial nerve schwannoma. Management at this time, includes serial MRI in combination with yearly neurologic and otologic examination to monitor for evidence of clinical or radiologic progression. Surgical exploration was not considered at this stage.

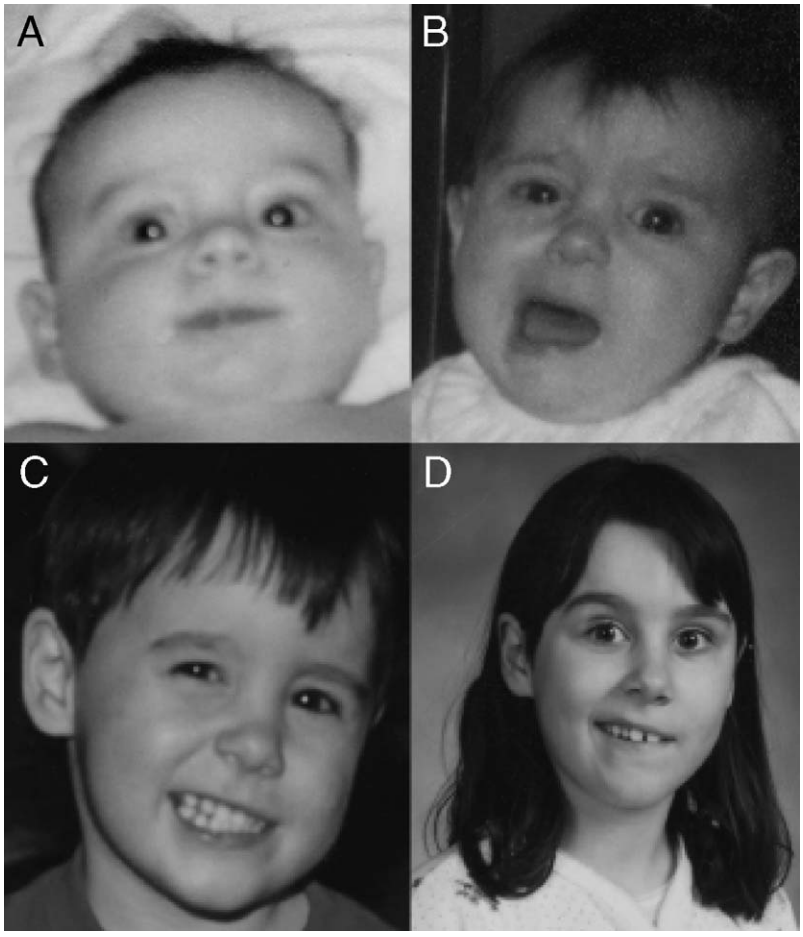

Fig. 1 Chronologic photographs demonstrating absence of facial weakness at 1 month of age (A) and persistent left facial weakness at 8 months (B), 2 years (C) and 9 years of age (D).