Congenital Torticollis Due to Sternomastoid Aplasia with Unilateral Cerebellar Hypoplasia: A Rare Association

V. R. Ravi Kumar · S. Raja Sabapathy · Vijayagiri Duraisami

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Abstract Congenital torticollis is most commonly caused by sternomastoid contracture. Aplasia of sternomastoid muscle causing congenital torticollis, though rare, has been reported. However the association of cerebellar hypoplasia with sternomastoid aplasia is extremely rare. The authors describe a case of congenital torticollis due to absence of the left sternomastoid with ipsilateral cerebellar hypoplasia, confirmed by MRI.

Keywords Congenital torticollis · Sternomastoid aplasia · Sternomastoid agenesis · Cerebellar hypoplasia

Case Report

A 4-year-old boy presented with torticollis on the right side from birth. There was no history of prolonged labour or sternomastoid tumor at birth. The growth and development of the child both physically and neurologically have been normal.

On examination, the child’s head was tilted to the right and the chin rotated toward the left (Fig. 1). The right sternomastoid was tight and the left sternomastoid could not be palpated (Fig. 2). There were no obvious cervical spine abnormalities. Neurologically the boy was normal. An MRI showed that the whole sternomastoid on the left was absent (Fig. 3). Incidentally the brain scan showed that the left cerebellar hemisphere was hypoplastic (Fig. 4). Though the logical treatment would be to divide the right sternomastoid, parents preferred physiotherapy as the mode of treatment.

Discussion

The most common cause of torticollis in children is sternomastoid contracture following a sternomastoid tumor in infancy. Other causes of torticollis are anomalies of cervical spine, weakness of extra ocular muscles, intermittent gastrooesophageal reflux called Sandifer syndrome and rarely due to posterior fossa tumours.

Congenital unilateral absence of sternomastoid resulting in torticollis, though reported, is rare [1]. In sternomastoid aplasia, the torticollis occurs due to uninhibited action of the normal sternomastoid muscle, the head is tilted away from the affected side and the chin points towards the shoulder of the affected side. Lung herniation into the neck associated with congenital absence of the sternomastoid muscle has been reported [2]. Unilateral congenital agenesis of sternocleidomastoid and trapezius muscles in the same child is a rare occurrence [3].