Case report

Could sternomastoid tumour be inherited ?

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Introduction

Theories on the aetiology of sternomastoid tumour have been extensively reviewed (1). They include, intrauterine factors, birth injury, haematoma formation, infective myositis, ischaemia and neurogenic, hereditary, musculo-skeletal and CNS abnormalities. We report two siblings born by lower segment caesarian section (LSCS) with right-sided sternomastoid tumour, whose mother also had right-sided facial asymmetry and torticollis. This is the only report in the literature where two sibs born by LSCS have been affected.

Case report

A male infant was delivered by LSCS for unstable lie and delayed engagement of the head at term. At birth, right-sided facial asymmetry was noticed. An xray done within 24 hours of birth showed hypoplasia of the right side of the mandible (Figure 1). A sternomastoid tumour was not felt at birth. Two weeks later he was brought with a right-sided sternomastoid tumour. This was managed with physiotherapy. At the age of one year there was only mild asymmetry that was more apparent on xray.

Facial asymmetry with mild torticollis was also noticed in the mother, and xray showed hypoplasia of the right side of the mandible (Figure 2). Xrays of the cervical spine of the mother and the child were normal.

The elder sister of the child was also delivered by LSCS two years previously. She also had a right-sided sternomastoid tumour noticed at 2 to 3 weeks of age. This was managed with physiotherapy. She does not have facial asymmetry at present.

The mother's birth history was not known and there was no reliable history suggestive of a sternomastoid tumour in her infancy. Her pelvic ultrasound and the xrays were normal.

Discussion

Intrauterine abnormal positions of the fetus due to hypertonia of the uterus, excess or diminished volume of amniotic fluid, irregularity of the uterine cavity and prolonged contact with pelvic bony prominence, have been attributed as causes of congenital torticollis (1). A few observations of sternomastoid tumours in infants born by LSCS, presence of sternomastoid tumour at birth and timing of the lesion on histology have contributed to

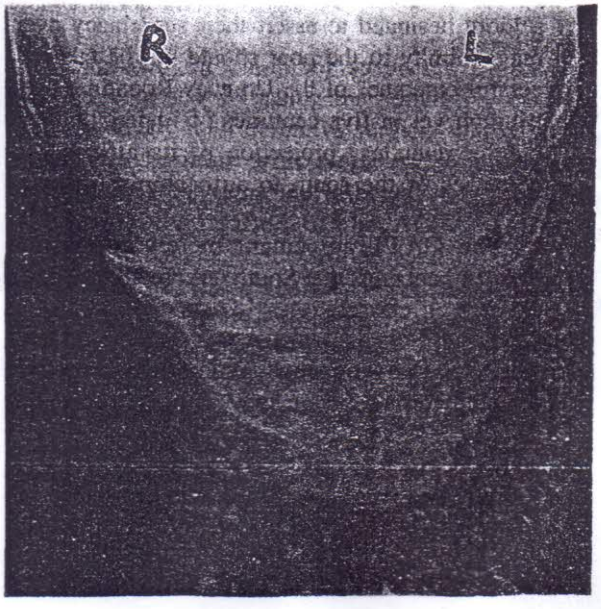

Figure 1. Xray at 24 hours of second sibling's face showing hypoplasia of right mandible.

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this theory (1). Musculoskeletal abnormalities such as Klippel Feil syndrome may also be associated (2).

Birth trauma has been widely incriminated because of the increased incidence of breech delivery in patients with sternomastoid tumour. However, the incidence has not decreased with improvement in obstetric care. It has been suggested that both sternomastoid tumour and breech presentation are caused by a common factor rather than breech presentation causing the sternomastoid tumour. This is supported by the observation of sternomastoid tumours in patients with breech presentation delivered by LSCS (1).

Both children we describe were born by LSCS. Therefore it is unlikely to be due to birth trauma. Since both had right-sided sternomastoid tumours, the possibility of a uterine malformation being responsible should be considered. The absence of abnormalities on pelvic ultrasonography, xray in the mother and inspection at LSCS makes this possibility unlikely. The presence of facial asymmetry with mild torticollis in the mother further suggests a hereditary aetiology. The presence in the second sib of facial asymmetry at birth also supports this view. A hereditary theory as a cause of sternomastoid tumour has been based on a few case reports (3). Both mother and one child were affected in the two instances in this report.

Jones in his review found 17 instances of probable hereditary aetiology (1). Both mother and a child were affected in eight families, while in six families multiple siblings were affected. Affected twins were found in three instances. None of these babies were born by LSCS. It is interesting to note that the only affected parent reported in the literature is the mother (1). Although children born by LSCS have been reported to have sternomastoid tumours, this is the first report of two sibs born by LSCS with sternomastoid tumours.

References

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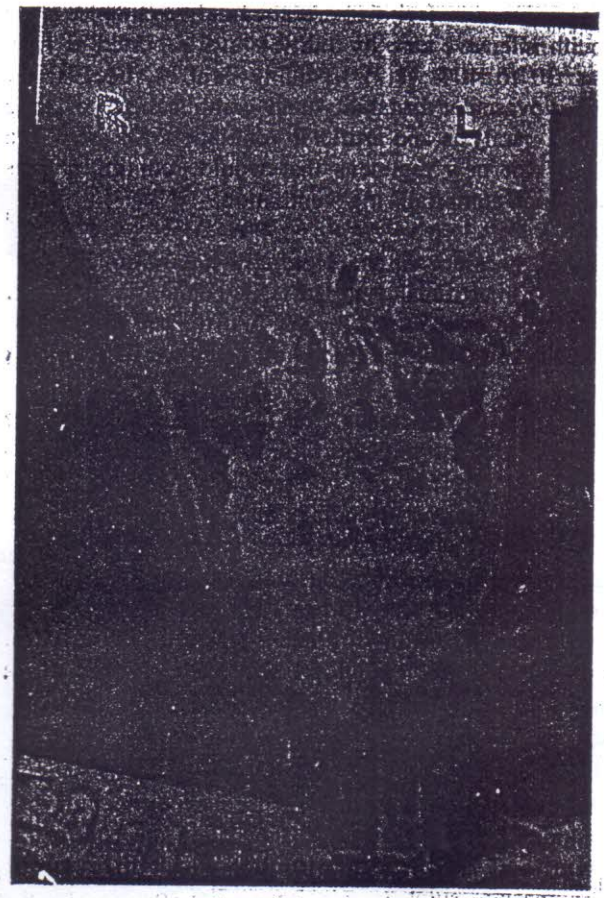

Figure 2. X-ray of mother's face showing mild asymmentry and hypoplasia of the right mandible.

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