Familial Cervical Rib

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Clinical image description

A 53-year-old female and her 20-year-old daughter presented with neck pain after a traffic accident. They were diagnosed with a cervical sprain injury. Radiography of the neck incidentally revealed bilateral cervical ribs on the seventh cervical vertebra in both patients (Figure 1A: Mother, 1B: Daughter). Since they had no neurologic symptoms prior to the accident, no treatment was performed for the cervical ribs. A cervical rib is a supernumerary rib which arises from the seventh cervical vertebra. It occurs in approximately 0.2 – 0.5% of the population. The brachial plexus or vascular bundle is sometimes entrapped by the cervical rib, resulting in motor and sensory disturbances (ie, thoracic outlet syndrome). HOX gene expression is known to be involved in the development of cervical ribs, although it is difficult to confirm a familial association in clinical practice because of the rare frequency. The occurrence of the cervical ribs in these patients suggests a familial tendency.

Figure 1: Familial bilateral cervical ribs arising from the seventh cervical vertebra (A: Mother, B: Daughter).