Duplication of the scapula

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Summary. Complete duplication of the scapula has not been described. We report two children both of whom had duplication of their right scapula associated with other malformations. In each case an operation was done to fuse the two abnormal scapulae together and the results were good.

Résumé. La duplication complète de l'omoplate n'a encore jamais été publiée. Nous rapportons ici le cas de deux enfants qui présentaient tous deux une duplication de l'omoplate droite associée à d'autres malformations. Ils ont été opérés afin d'obtenir la fusion des deux os et les résultats ont été bons.

Key words: Scapula, Duplication, Congenital

Introduction

Complete duplication of the scapula has not been described in the literature. There have, however, been reports of individual cases in which there was splitting of the lower part of the scapula or the coracoid process [13]. The very rare multiple structures in the shoulder are as a rule associated with multiplications of the limbs. In 1940, Stein and Bettmann described a large scapula with two joint sockets in a 52-year-old women [11]. A humerus articulated with each of these and there was diplochoria without separation of the covering skin; in all there were two humeri, five bones of the forearm and six fingers.

We report two cases of duplication of the scapula whom we have operated on, and whom we have followed up for a long time.

Case 1

This boy was delivered as a second twin in 1968. Pregnancy had been normal. The first child had a clubfoot and calcaneal aplasia. We saw the second when he was 8 days old. There were several malformations of the upper and lower limbs. A constriction band was present in the region of the right shoulder girdle and he had acrosyndactyly of the right middle and ring fingers. There was aplasia of the left arm and the baby had bilateral clubfeet. He had a severe convergent strabismus on the left with nystagmus (Fig. 1a and b).

The radiographs showed that there was duplication of the right scapula. Both the abnormal scapulae were separate; one was placed craniomedially and the other caudolaterally (Fig. 1c). The tip, the acromion and the coracoid process were present in both, but a joint socket was formed only in the caudal element, which was placed laterally in relation to the clavicle and articulated with the head of the humerus. There was only a single clavicle which articulated with the cranial scapula. The remaining bone structure in the right arm was normal. There was aplasia of the left arm, but the scapula on this side was normal. A scoliosis was present and there were neural arch defects in C7 and T1.

Operation was carried out at the age of 9 months. A wide cartilaginous plate was found linking the two scapulae, and this was excised. The two parts were joined by wire cerclage. Radiographs after operation showed fusion of the two scapulae (Fig. 2).

The patient was last seen when he was aged 16 years. There was no restriction in the function of the right arm and he wore a myoelectric prosthesis on the left side. The cosmetic and functional result was good (Fig. 3).

Case 2

The second boy was seen by us when he was four years old (Fig. 4). There was duplication of the right scapula with multiple other malformations and syndactyly of the right ring and little fingers. He had a spoon deformity of the left hand and operations for syndactyly on this side had been carried out at another hospital. There was a scoliosis to the left based on T8,
Fig. 1 a–c. Case 1; at the age of 8 days. a There is aplasia of the left arm. On the right side a deep constriction band is present in the region of the shoulder. There is also acrosyndactyly of the right middle and ring fingers, clubfoot on both sides and a convergent strabismus; b Radiographs show duplication of the right scapula. The bones of the right upper and lower arm are normal. The left scapula has a normal structure. A scoliosis is present with neural arch defects in C7 and T1; c A lead wire marks the depth of the constriction band. There is duplication of the acromion and the coracoid process. A large gap separates the two scapulae.

Fig. 2 a, b. Case 1; after operation. a The scapula appears normal and the wires are still in situ. The arrow shows the neural arch defect; b The distal phalanges of all the fingers of the right hand are missing