

Neonatal diagnosis of congenital pseudarthrosis of the clavicle

Véronique Brévaut-Malaty • Jean-Marc Guillaume

Received: 20 July 2009 / Accepted: 31 August 2009 / Published online: 22 October 2009
© Springer-Verlag 2009

A full-term baby boy required moderate resuscitation at birth. Clinical examination revealed a painless lump of the right clavicle. Radiographically, the borders of the two fragments were sclerotic (Fig. 1) and follow-up US showed no callus formation. These findings confirmed the diagnosis of congenital pseudarthrosis of the clavicle (CPC).

CPC results from failed coalescence of the two primary ossification centres of the clavicle; the true mechanism of this condition remains unknown [1, 2]. It occurs almost always on the right side and very rarely bilaterally. The larger medial segment always lies above the smaller lateral segment. On both sides of the pseudarthrosis, features of enchondral ossification and fibrocartilage are found [1]. Diagnosis in the neonatal period has been rarely reported, with the lesion usually found during the first 2 years of life [2]. The function of the shoulder is not impaired, although a non-aesthetic painful deformity or thoracic outlet syndrome may occur during and/or after the growth period. Surgery, consisting of resection, bone grafting and osteosynthesis is usually performed at a mean of 6 years of age [1].

There are two differential diagnoses. Cleidocranial dysostosis is easily excluded by the absence of hypoplastic

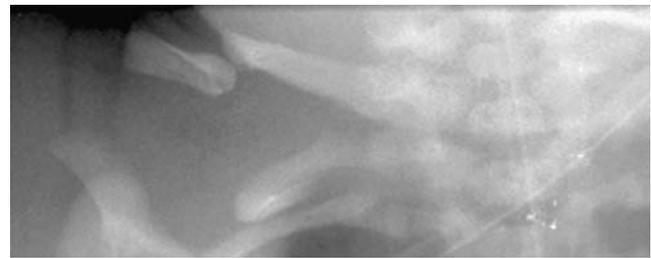


Fig. 1 AP radiograph of the right clavicle

clavicles and a wide pubic symphysis. It is important to differentiate CPC from birth trauma; in the latter, callus formation occurs very quickly.

References

1. Gomez-Brouchet A, Sales de Gauzy J, Accadbled F et al (2004) Congenital pseudarthrosis of the clavicle: a histopathological study in five patients. *J Pediatr Orthop B* 13:399–401
2. Gibson DA, Carroll N (1970) Congenital pseudarthrosis of the clavicle. *J Bone Joint Surg Br* 52:629–643

V. Brévaut-Malaty (✉)
Department of Paediatrics, Neonatology Unit,
Hôpital Nord,
13915 Marseille Cedex 20, France
e-mail: veronique.brevaut@ap-hm.fr

J.-M. Guillaume
Department of Paediatric Surgery,
Hôpital Nord,
13915 Marseille Cedex 20, France
e-mail: jean-marc.guillaume@ap-hm.fr