

Congenital Non-Union of Olecranon: A Review of Literature

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1. Abstract

Congenital non-union of the olecranon was first described by Habbe in 1942. A few authors described this anomaly in a very young patients. Only Two authors published the treatment of patella cubiti. Here, I document a brief review of literature. In this review, there are not figures and outcomes.

2. Key words

Congenital; Non-union; Olecranon

3. Introduction

Congenital non-union of the olecranon, which Habbe [1] called "patella cubiti" is a very rare anatomical variation. He reported 4 cases in which a separation of the olecranon was discovered on radiographs after minor injuries. Three of these patients had previous elbow injuries.

A few authors described this abnormality in a very young patients [2, 3], and reported that surgical treatment can result in healing of non-union. Here, I document a brief review of literature.

4. Epidemiology

I found only two publications concerning the treatment of patella cubiti [2, 3], and both involved in children.

5. Differential Diagnosis

I agree with Burge and Benson [2], and Pouliquen [3] that this abnormality differs from a congenital pseudoarthrosis of the forearm, which has been reported previously by others [4-6].

Patella cubiti is bilateral, is not associated with a systematic disease such a neurofibromatosis, and has been reported to improve clinically with time.

6. Diagnosis

Radiographically, the proximal component seems to be the olecranon itself which is separated from the rest of ulna. No tapering or erosion of the bone ends can be seen. I believe that this separation of the olecranon from the rest of ulna represents a failure of ossification during embryogenesis, rather than an acquired pseudoarthrosis.

7. Treatment and Outcome

Burge and Benson [2], as well as Pouliquen [3], emphasized the necessity for early surgical treatment, in order to achieve union

of pseudoarthrosis. The patient of Burge and Benson was treated curettage-fixation at the age of six years and, one year later, had flexion contractures (30° on the right side and 40° on the left side) that were nearly identical to those seen preoperatively. Pouliquen et al reported a better result in their patient, who was operated on before the age of years. That patient had a preoperative flexion contracture of 30° on the right side and 40° on the left side and, two years after surgery on the right side and six months after surgery, he had a bilateral flexion contracture of 10° with full flexion.

Moreover, children noted to have these defects should be watched closely when they first attempt walking, as the deformity may restrict the child's ability to use the hands for protection during a fall.

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