Asymptomatic lunotriquetral coalition: an incidental radiographic finding

Selahattin Ozyurek,¹ Ferhat Guler,² Kerem Canbora,³ Ozkan Kose²

¹Department of Orthopaedics and Traumatology, Aksaz Military Hospital, Mugla, Turkey

²Department of Orthopaedics and Traumatology, Antalya Education and Research Hospital, Antalya, Turkey

³Department of Orthopaedics and Traumatology, Haydarpasa Numune Education and Research Hospital, Istanbul, Turkey

Correspondence to
Dr Selahattin Ozyurek,
fsozyurek@yahoo.com

DESCRIPTION

A 40-year-old woman presented to our orthopaedic clinic with left-sided wrist pain after falling. On physical examination, there was no limitation in range of motion of the wrist; however, flexion and extension were minimally painful. There was no swelling or tenderness in the wrist. Other findings were normal. Plain anteroposterior radiograph of left wrist showed a left-sided osseous fusion of the lunate and triquetrum with a distal notch according to Minaar's classification type II (figure 1). MRI also revealed the lunotriquetral coalition Minaar type II confirming the stable proximal fusion of the bones with a distal notch of the left wrist and no bone oedema (figure 2). Analgesics and bandage to the left wrist was given. The patient became asymptomatic and returned to her normal activities within 5 days.

Carpal coalitions are rare, asymptomatic entities that most often present as incidental findings. The most common coalition is of the luno-triquetral type followed by the capito-hamate coalition. It is more common in women 2:1 and African-Americans. While osseous coalitions of the lunate and the triquetrum are known to be asymptomatic, fibrocartilage lunate-triquetral coalitions can present as an uncommon cause for ulnar-sided wrist pain.^{1 2}

Figure 1 Anteroposterior radiograph of the left asymptomatic wrist showing a lunotriquetral coalition Minaar type I.

Figure 2 MRI shows the lunotriquetral coalition Minaar type II confirming the stable proximal fusion of the bones with a distal notch of the left wrist.

Minaar classified this anatomical variation in four types. Type I represents an incomplete fusion similar to a pseudoarthrosis (fibrocartilage coalition), type II an incomplete osseous fusion with distal notch, type III a complete osseous fusion (os lunotriquetrum) and type 4 a complete osseous fusion associated with other carpal anomalies.³

Learning points

- ▶ Lunotriquetral coalition is the most common type of congenital carpal anomaly and represents congenital fusion of the lunate and triquetral bones of the carpus.
- ▶ It is most often diagnosed as an incidental finding in asymptomatic patients.
- ▶ Lunotriquetral coalition can be associated with other synostoses or malformations as a part of syndromic manifestations.

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