Ligamentous Reconstruction of the Interosseous Membrane of the Forearm in the Treatment of Instability of the Distal Radioulnar Joint

Reconstrução ligamentar da membrana interóssea do antebraço, no tratamento da instabilidade da articulação radioulnar distal

Stavros Angelis1,2, Spyridon Triantafyllou1, Panagiotis Skandalakis1, Dimitrios Filippou1

1 Department of Anatomy and Surgical Anatomy, Medical School, National and Kapodistrian University of Athens, Athens, Greece
2 Department of Orthopedics, Korgialenio-Benakio Hellenic Red Cross Hospital, Athens, Greece

We have recently read this very interesting article concerning a new approach in the treatment of the longitudinal instability of the distal radioulnar joint (DRUJ), published by Aita et al in Rev Bras Ortop. 2018; 53(2):184–191. The results of the proposed approach seem very promising, while the technique seems to be relatively simple, feasible, fast, and with a short learning curve. All of the aforementioned advantages suggest that it may represent an excellent alternative treating option.

According to the authors, the technique uses the brachioradialis muscle tendon to pass it through a radial and an ulnar tunnel, obliquely, proximally in the radius and distally in the ulna, and is fixed with one blocking screw at each bone. This is also demonstrated at Figs. 3, 4 and 5. According to Noda et al.1 who first reported and named the distal oblique bundle (DOB) in 2009, “the DOB originated from approximately the distal one sixth area of the ulnar shaft, approximately coinciding with the proximal border of the pronator quadrates muscle, and ran distally toward the DRUJ. The fibers blended into the capsular tissue of the DRUJ and eventually the DOB inserted to the inferior rim of the sigmoid notch of the radius.”

The authors presented their approach as a reconstruction technique of DOB, but this seems not to be accurate since the course of the brachioradialis tendon graft is exactly opposite to the normal course of the DOB. The course that the authors describe is more likely to represent the course of the “tract” of the interosseous membrane described by Gabl et al.2 In our opinion, the reconstruction technique that simulates the DOB in the best way is the one described by Riggenbach et al.3

The DOB is a structure of the distal interosseous membrane that seems to be an important isometric stabilizer for the DRUJ, according to Moritomo et al.4 Its anatomical and clinical significance is still under evaluation, so accurate and careful descriptions are of immense importance.

Conflicts of Interests
The authors have no conflicts of interests to declare.

References