Technical Tricks and Tips #50 Upper Extremity

Lateral Clavicular Fractures Associated with Acromioclavicular Luxation Treated by Osteosynthesis and Coracoclavicular Stabilization: A Surgical Technique

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Purpose: Unstable distal clavicle fractures associated with lesions of the coracoclavicular (CC) ligaments demonstrate a high symptomatic nonunion rate if treated conservatively. A variety of surgical techniques have been described. Many of these techniques were associated with high failure rates. Therefore, we have adopted a surgical technique that aims at stabilization of the CC ligaments in combination with osteosynthesis of the clavicle. We questioned: (1) loss of reduction; (2) clinical function in terms of the Oxford Shoulder Score (OSS), American Shoulder and Elbow Surgeons Shoulder Score (ASES), and visual analog scale (VAS); (3) return to work; and (4) return to sports.

Methods: This was a retrospective single-center case series conducted between 2015 and 2019 of patients who had a lateral clavicular fracture associated with a CC ligament lesion and underwent stabilization of the CC ligaments by FiberWire and osteosynthesis by low-profile plating (thickness 1.3 mm). Only acute lesions were included. Thirteen patients, with an average age of 48 years, had a clinical and/or radiological average follow-up of 3 years.

Results: Only one of the patients showed loosening of more than 5 mm of the CC ligaments, without horizontal instability and was completely asymptomatic. No loss of reduction was determined. The clinical function at an average of 38 months showed a complete recovery in 10 of the patients. The average OSS was 47 of 48, ASES 99, and VAS 0. All the patients, except two pensioners, went back to work within 2 months and back to sports within 5 months of the operation. Four of the patients were reoperated with the removal of the implants due to discomfort. No other complications were encountered.

Conclusion: Stabilization of the CC ligaments in combination with osteosynthesis of the lateral clavicle using low profile plating provides a surgical treatment option with complication rates consistent with the current literature, a very satisfactory clinical outcome, as well as early return to work and sports.



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