

Injuries of the Sternoclavicular Joint - An Innovative Approach in the Management of a Rare Injury: Tight Rope Fixation of the Costo-Clavicular Ligament

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Abstract

Background: The costoclavicular ligament (CCL) provides the most tight stability within the sternoclavicular joint (SCJ), followed by the most cited sternoclavicular ligaments (SCL). Their disruption may cause severe instability of the SCJ. Different treatment options, such as the use of plates, wires or autologous tendons are associated with mainly limited functional outcome. Could a stabilization of CCL next to an anatomic fixation of the SCL provide sufficient reconstruction of the SCJ?

Methods: A 58-year-old male showed severe anterior and painful instability of the SCJ following a fall on his shoulder 8 weeks ago. The SCJ had been reconstructed in an open procedure with stabilization of the CCL employing 2 tight ropes and anatomical suture of the SCL. Follow-up was carried out 78 weeks after operation.

Results: The reduction of the SCJ was successful. X-ray proved the anatomic position of the SCJ. Pain was decreased in between the first 6 weeks. The patient showed uneventful follow-up and returned to work 6 months after the procedure as a hard working farmer.

Conclusions: Innovative stabilization of the CCL with tight ropes additional to a suture of the SCL may enable anatomic reconstruction of the SCJ considering cosmetic and functional results.

Key words: SCJ joint, sternoclavicular dislocation, sternoclavicular ligament, costoclavicular ligament, tight rope