

Novel surgical treatment of an excessive medial clavicle resection

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Background

- Medial clavicle excision is a rarely indicated procedure performed in different pathologies affecting the proximal part of the clavicle.
- Excessive medial clavicle resection with an injury to the costoclavicular ligament often leads to poor postoperative results.
- The exact surgical treatment that should be used in this kind of pathology when conservative treatment is unsuccessful remains questionable.

Surgical technique

- Our preferred surgical treatment of this condition is to fix an autograft from the iliac crest on the medial end of the clavicle with a plate.
- Stabilization of the newly reconstructed medial part of the sterno-clavicular joint is performed with a gracilis allograft shuttled through the medial part of the autograft and the lateral sternal part of the sterno-clavicular joint in a figure-of-eight configuration.
- The final costoclavicular stabilization reconstructing the costoclavicular ligament is performed with the high-strength sutures passing through the first rib and around the plate fixed on the remnant of the medial clavicle and multiple knots are performed on the superior surface.
- The end result is an anatomic reconstruction of the sterno-clavicular joint.



Conclusion

- Further long-term studies should show, whether the proposed surgical reconstruction and stabilization adequately restores normal shoulder mechanics and function, in the setting of symptomatic excessive medial clavicle resection.

