



## STERNOCLAVICULAR JOINT RECONSTRUCTION FOR INSTABILITY USING LARS LIGAMENT: REPORT OF SURGICAL TECHNIQUE AND EARLY OUTCOMES

1. **J. Quayle,**
2. **R. Pennington and**
3. **P. Rosell**

±Author Affiliations

1. 50 Tower Close, East Grinstead, West Sussex RH19 3RT, UK

1. Email: [jonathan.quayle@gmail.com](mailto:jonathan.quayle@gmail.com)

### Abstract

Traumatic injuries to the sternoclavicular joint (SCJ) are uncommon representing only 3% of all injuries to the shoulder girdle. Acutely, the majority are managed non-operatively with physiotherapy rehabilitation. However, if there is evidence of neurovascular compromise emergency reduction is indicated. There is no consensus on treatment of SCJ dislocations and subluxations that remain symptomatic after conservative treatment. Multiple surgical techniques have been described to alleviate this problem. These include resection of the medial end of the clavicle and various stabilization techniques using Kirschner wires, muscle tendon (subclavius, sternocleidomastoid, semi-tendinosus and palmaris longus) and synthetic materials (Dacron). However, all techniques have reported problems in terms of pain, decreased range of movement and a relatively high complication rate.

We report a new technique using a LARS® ligament (Ligament Augmentation and Reconstruction System) with good early post-operative results. 5 symptomatic SCJ dislocations were repaired over a 3 year period. The operations were conducted by the same surgeon and at the same unit. The patients were on average 20 years old (17–22). Mean follow up time was 21 months (9–41). Functional assessment was made using the DASH (Disabilities of the Arm, Shoulder and Hand) and the OSS (Oxford Shoulder Score) outcome measures. An improvement between pre- and post-operative scoring was observed in both DASH median 51.7 (24.2–75.0) v 13.7 (8.3–20.8) ( $p=0.024$ ) and OSS 20.6 (15–32) v 41.8 (39–47) ( $p<0.001$ ). One patient had a pneumothorax intra-operatively but this resolved with conservative treatment. There were no long term complications experienced during follow up.

- **Trauma**

- Copyright © 2013, British Editorial Society of Bone & Joint Surgery