

Reflections on Acromio-Clavicular Dislocations

Úvahy o akromioklavikulárních luxacích

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SUMMARY

A number of surgical and nonsurgical techniques have been used in the recent past for the treatment of this not uncommon traumatic condition. Thus far, no agreement has been reached regarding the method most likely to consistently render good results. Uppermost in determining the treatment has been the degree of displacement of the clavicle and the prevention of possible cosmetically unacceptable complications.

Advances in the surgical care of most fractures and dislocations have led to the current belief and practice among the majority of orthopaedic surgeons that every effort should be made to correct any deviation from the normal produced by the injury. I submit that skilful neglect and acceptance of acromio-clavicular dislocation is an option worth considering.

When the dislocation is accepted, the vast majority of patients do well, functionally and aesthetically. Chronic pain is an extremely rare situation; and the resulting deformity, from the cosmetic point of view, an uncommon problem. If this is the case, what is the problem that reconstructive surgery proposes to address?

The following observations I have made over the years are the foundations for my belief that nonsurgical care and acceptance of the untreated dislocation is often-times a good option (1, 2, 3, 4, 5).

Among the most commonly performed surgical modalities, is the use of a screw driven through the clavicle and fixed distal into the coracoid process, known as the Bosworth operation. Despite the sound logic behind this technique, complications are not uncommon. The screw sometimes breaks or loses its fixation and migrates superiorly.

A less frequently performed procedure is the use of a fascial sling wrapped around the clavicle and coracoid process, after surgical reduction of the dislocation. The technique tries to reproduce the stability obtained with the Bosworth operation. However, it appears that the initial perfect reduction is frequently lost as the normal biomechanical properties of the fascial sling are lost (2, 3, 4). Whether the surgical procedure used, with metal or soft tissue stabilizers, a subluxation is very common, leading to osteoarthritic pathology. As in the case of the congenital dislocation of the hip, a complete dislocation leaving no contact between the articular cartilage of the femoral head and the pelvic bone produces arthritis. On the other hand, subluxation, almost inevitably, brings about arthritic changes at an early age.

From a similar reason, in the case of a dislocated A.C. joint, that leaves no contact between normal articular surfaces, osteoarthritis is not possible. Residual pain that some patients treated in this manner may experience is not from arthritis per se, but from the surrounding soft tissue structures.

Intramedullary fixation, with some frequency, demonstrates migration of the nail either laterally or

medially. The procedure does not guarantee maintenance of the initial reduction after the implant is later removed. A subluxation frequently appears and osteoarthritic changes can be anticipated. The possible damage to the cartilage from the initial insertion and subsequent loosening of the nail is another likely possibility (1).

Any treatment modality that reduces or eliminates motion from the acromio-clavicular joint implies that other joints participating in the overall motion of the shoulder must increase their contributions. Whether or not this possibility is important, is not an important issue, simply a speculation. Nonetheless, it is possible that the stresses, to which the now less mobile joint is subjected, may create an environment conducive to degeneration.

It is, in the mind of many surgeons, that a left untreated dislocated acromio-clavicular joint leaves a deformity likely to be aesthetically unacceptable. This is an unsupportable assumption, since the vast majority of dislocated A.C. joints treated conservatively, produce deformities which are not readily noticed with the naked eye and inconsequential from the functional point of view.

DISCUSSION

The observations made in this commentary are based entirely on personal experiences insufficiently supported by adequate detailed documentation. The patients that served to shape my conclusions were poor for the most part and were treated in trauma clinics in a teaching hospital devoted to that segment of the population. Long-term follow-up of these patients is usually extremely



a/b
c/d/e



Fig. 1. a – Radiological view of dislocated A.C. joint. b–e – Notice the mild protuberance at the level of the dislocation. The twenty-two-year-old patient demonstrates the range of motion of her asymptomatic shoulder six months after the initial injury.



a/b
c/d

Fig. 2.a – Radiograph of the dislocated right A.C. joint. b–d – Notice the mild deformity at the level of the dislocation, and the range of motion of the asymptomatic shoulder.



$\frac{a|b}{c|d}$

Fig. 3. a – Radiograph of the dislocated A.C. joint of a fifty-four-year-old carpenter, obtained three months after the initial insult. b–d – Patient demonstrates the range of motion of his asymptomatic shoulder.



$\frac{a|b}{c|}$

Fig. 4 a - Radiograph of dislocated A.C. joint. b - Notice the mild deformity at the level of the dislocation, and the range of shoulder elevation seven weeks after the initial nonjury.



a/b
c/d

Fig. 5. a – Radiograph of the dislocated right A.C. joint of a twenty-eight-year-old laborer; b–d – Notice the minimal protuberance at the level of the dislocation. Patient demonstrates the range of motion of his asymptomatic shoulder nine weeks after the injury.

difficult due primarily to poor education and economic factors.

It is likely that the empirical data I have presented might support my argument that conservative treatment has a major place in the management of dislocated acromioclavicular dislocations. The functional results can be anticipated to be very acceptable in most instances; the deformity the dislocation leaves behind is usually cosmetically acceptable; true secondary osteoarthritis is not possible since contact between articular surfaces is no longer present; the complications that may occur from surgery are avoided; the surgical scar is more visible than the lump at the level of the dislocation; and the overall cost of care is significantly reduced.

Surgical modalities remain the preferred methods of treatment in the instances where the displacement of the clavicle is so severe that cosmetic and function may be compromised. If such high degrees of displacement is erroneously accepted and painful symptoms develop, the distal end of the clavicle may be excised and held at a lower level, using the fascial sling-supported technique.

It is reasonable to ponder on the wisdom of subjecting patients to surgical interventions not likely to give better clinical results, when the main “benefit” from them may be the radiological appearance of the injured structures. *Primum non nocere*, still remains the sacred code of medicine. If despite the presence of a chronic dislocation, the patient is asymptomatic and the function of the shoulder is good, what is the “problem” reconstructive surgery proposes to address?

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