

Dr. Papavasiliou et al. respond to Dr. Ibrahim

3 January
2008



Kyriakos A
Papavasiliou, M.D.,
Ph.D., Research
Fellow,
Orthopaedic Surgeon
*3rd Orthopaedic
Department, Aristotle
University of
Thessaloniki-Greece
Medical School,*
John M. Kirkos, M.D.,
Ioannis K. Sarris,
M.D., George A.
Kapetanos, M.D.

Send letter to journal:
[Re: Dr. Papavasiliou et
al. respond to Dr.
Ibrahim](#)

[E-mail](#) Kyriakos A
Papavasiliou, M.D.,
Ph.D., Research
Fellow, et al.

We thank Dr. Ibrahim for his interest in our recent article(1) and we would like to make the following comments in response:

This is an interesting and accurate remark. However, as seen in other parts of the developing skeleton, an injury to the lateral clavicle and the acromioclavicular area is more likely to be a physeal fracture than a true acromioclavicular separation(2,3). Prior to epiphyseal closure, the physis is weaker than the ligaments and this is the main reason that, following an injury, the ligaments usually remain intact while the bone is fractured(4,5). This, of course, does not mean that ligaments are not injured at all, even though they (usually) do remain intact. We believe that this principle is applied in our case as well (i.e. the acromioclavicular joint had also suffered an injury even though "intraoperative findings revealed an intact acromioclavicular joint"). Furthermore, this terminology (i.e. acromioclavicular joint injury) seems to be strongly supported by the literature(2,3,6), it was used by Eidman et al.(3) when this type of injury was reported for the first time and probably is one of the reasons that Dameron and Rockwood (2,6) have included in their well established classification of acromioclavicular injuries, types of injuries that are not true acromioclavicular separations.

We totally agree with Dr. Ibrahim regarding his second comment. In fact, we are also familiar with at least one unpublished case of a Kirschner Wire (KW) migration following a clavicle fixation that took place at our department. Nevertheless, we believe that KW fixation remains a reliable and safe technique(especially in the developing skeleton). Ever since we began bending the exterior part of the KW, ie. the part left out of the patient's skin, no such incident has occurred.

References:

1. Kirkos JM, Papavasiliou KA, Sarris IK, Kapetanos GA. A rare acromioclavicular joint injury in a twelve-year-old boy. A case report. J Bone Joint Surg Am

2007;89:2504-2507.

2. Tachdjian MO. Upper extremity injuries. In: Herring JA, editor. *Pediatric Orthopedics*, 3rd edition. Philadelphia: W.B. Saunders Company; 2002. p 2115-39.
3. Eidman DK, Siff SJ, Tullos HS. Acromioclavicular lesions in children. *Am J Sports Med* 1981;9(3):150-4.
4. Havranek P. Injuries of distal clavicular physis in children. *J Pediatr Orthop* 1989;9(2):213-5.
5. Montgomery SP, Loyd DL. Avulsion fracture of the coracoid epiphysis with acromioclavicular separation. Report of two cases in adolescents and review of the literature. *J Bone Joint Surg Am* 1977;59- A:963-5.
6. Dameron TB Jr, Rockwood CA Jr. Fractures and dislocations of the shoulder. In: Rockwood CA Jr., Wilkins KE, King RE editors. *Fractures in Children*. Philadelphia: J.B. Lippincott Company; 1984. Vol 3, p 628.