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## New insights into the management of compartment syndrome: A retrospective case series review

**E F Girgis and D S Z M Boctor**  
Lister Hospital, UK

**Introduction:** Compartment syndrome (CS) is a limb-threatening surgical emergency. However, despite its seriousness, the incidence of fasciotomy has been shown to vary from 2% to 24% among surgeons. This variability suggests that management can be challenging. We present findings from a retrospective study, concentrating on those that are either novel or have not commonly been discussed in the literature to date.

**Methods:** We reviewed all aspects of management of 34 patients admitted between 1998 and 2013.

**Results:** We present a range of data focusing on more novel insights including:

- CS following distal radius fractures is more common than perhaps currently appreciated.
- Neurological and vascular injuries may co-exist, altering the clinical presentation. Moreover, symptoms of CS may mimic those of vascular injury, as occurred in one case of misdiagnosed popliteal artery transection.
- We recommend epimysium release at the time of fasciotomy given the number of cases with evidence of intramuscular bleeding.
- We recommend conservative initial debridement followed by re-exploration, given that during compartment release, most cases with change of muscle colour regained normal colour intra-operatively, or at later re-exploration.
- We recommend employing methods such as partial closure and re-exploration, and shoe-lace sutures to limit the use of skin grafting to achieve better cosmetic results.

**Conclusions:** In this retrospective study we present findings that are either novel or have not commonly been discussed to date. We believe these findings will improve surgeons' management of CS, thus improving morbidity.

### Biography

E F Girgis graduated from Medical School in Cairo, and thereafter trained in Orthopaedic Surgery in London and completed his FRCS (Trauma & Orthopaedics). He is currently a lower limb arthroplasty Fellow in Plymouth, UK.

[e\\_f\\_girgis@hotmail.com](mailto:e_f_girgis@hotmail.com)