

THIGH COMPARTMENT SYNDROME WITHOUT FRACTURE : KUCHING EXPERIENCE

Mohd Rifhan Syahmi Mohd Rusdi¹, Mohamad Zaki Haji Mohd Amin¹, Jeyasilan Karpudewan²

¹Universiti Malaysia Sarawak, ²Hospital Umum Sarawak

Introduction: Thigh compartment syndrome (TCS) is a rare but potentially devastating condition, in which the pressure within the osseofascial compartment rises above the capillary perfusion gradient, resulting in impaired local circulation, muscle ischaemia and eventually necrosis

Discussion: 16 years old boy was brought to emergency department following a road traffic accident with complain of severe pain over left thigh and unable to ambulate. Otherwise there was no other injury. Other history was unremarkable. Physical examination reveals left thigh swollen and tense, woody hard in consistency, limited range of motion due to pain. Otherwise no external wound was noticed, distal pulses was palpable and comparable to contralateral side, sensation intact. X-ray shows no obvious fracture. Following clinical judgment, we proceeded with emergency fasciotomy about 4 hours post trauma. Intraoperatively, upon fascia release, muscle of anterior compartment bulging with collection of hematoma evacuated surrounding quadriceps muscle. Postoperatively, dressing done with normal saline and jelonet dressing. Subsequently the swelling reduce and proceed with delayed primary closure about 10 days post compartment release. Patient then was discharge well, and no complication notice during follow up at our clinic.

Conclusion: A full-blown compartment syndrome in the thigh is a rare clinical occurrence. This is mainly because the three muscle compartments in the thigh can compensate much higher volumes compared to compartments of leg. TCS can lead to serious morbidity and mortality if not recognized and treated immediately. The key to successful treatment is prompt clinical diagnosis and compartment release. Measurement of compartment pressures provides significant diagnostic relevance in unconscious patients but is of less diagnostic value when assessing alert, cooperative patients. Literature shows muscle necrosis is more commonly found in TCS without a fracture than in those with a fracture. Referral of swollen tense limbs without fracture should not delayed.