

Compartment Syndrome In Unfractured Limb, Is It Possible In A Contralateral Femur Fracture? - A Case Write Up

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INTRODUCTION:

Compartment syndrome is a known complication in long bone fracture. The incidence of compartment syndrome in contralateral normal limb is rare. There is little literature have ever documented this incidence. The placement of non operated limb on a fracture table usually in various manners. Usually, patient placed in hemilithotomy position which may leads to unpredicted complication such as well-leg compartment syndrome.¹ Here, we describe a case of post fixation open femur fracture complicated by well-leg compartment syndrome.

CLINICAL CASE REPORT:

36 years old gentleman presented with alleged motor vehicle accident sustained open fracture right femur. Fracture complicated with hypertrophic non union right femur. Internal fixation with nailing system and iliac bone graft was done which took more than four hours of duration. One day post operation noted patient had swollen over left calf compartments which is contralateral to the operated lower limb. Swelling was tense, tender and hard. Patient diagnosed with compartment syndrome and fasciotomy was done.

DISCUSSION:

Compartment syndrome of lower leg refers to clinical phenomenon when elevated osteofascial compartment pressure leads to decreased tissue perfusion to the leg. Prolonged surgery increase the risk of developing compartment syndrome over the well-leg due to continous pressure of the restraint used to immobilise the well-leg. This is a phenomenon that overlooked by many surgeon who struggle to fix the fracture. Failure to identify this possible risk leads to developing the compartment syndrome and subject the patient for unplanned fasciotomy. Patient who is subjected for long surgery

should have the restraint to be released for proper perfusion to avoid this morbidity.

CONCLUSION:

Prolonged surgery is one of the risks for well-leg compartment syndrome. Different approach or positioning may be taken into consideration in prolonged surgery to avoid this rare complication. Well-leg compartment syndrome still unrecognized globally, it should be one of the main concerns for surgeons and operation team.

REFERENCES:

1. Sanjay Meena et al. Well-leg compartment syndrome after fracture fixation in lithotomy position. Med Princ Pract. 2014 May; 23(3): 275–278.