

Late Presentation Of A Chronic Upper Limb Ischemic Contracture

¹Lau LQ, ¹Silvanathan JP, ¹Muhammad Nawawi RF, ¹Chuah CK

¹Orthopaedic Department, Hospital Kuala Lumpur, 23, Jalan Pahang 53000 Kuala Lumpur

INTRODUCTION:

Volkmann's ischemic contracture is the end result of prolonged ischemia of the muscles and nerves in an extremity. Most commonly caused by untreated or prolonged ischemia from an acute compartment syndrome, the high pressure within an osteo-fascia compartment reduces capillary perfusion below a level necessary for tissue survival. Sustained ischemia results in irreversible changes to the muscle which undergoes necrosis and replaced with fibrotic tissue, clinically presenting as contracture.

CASE:

We present a 19-year-old who came to us with a fixed extension deformity of her left wrist. She has been living with this problem since the age of 8, after sustaining a fracture at her elbow for which she was then treated with cast. Upon completing treatment of the elbow injury she noticed that she had a wrist extension deformity. Examination in clinic reveals the range of movement of elbow and all the fingers are full, but the movement of left wrist is limited to 75-90 degree extension. She underwent extensor tendon lengthening and intraoperatively, it was noted that all the extensor muscles were tight and contracted. The ECRB and ECRL were divided and distal portion of ECRB was weaved to the proximal part of ECRL. On the other hand, EDC tendons were lengthened.

RESULTS:

At 6 months follow up, she is able to flex her wrist to neutral position and attain wrist extension to 90 degree. Grip strength of left hand is 20 kg compared to 30kg over the right. The hand function markedly improved where she can position her hand better while playing piano and typing. She is very happy with the outcome.



CONCLUSION:

Prevention is better than cure. After application of cast, proper cast care counselling should be informed to patient. Prompt recognition and treatment of an acute compartment syndrome reduces the overall morbidity. Volkmann's contracture leads to a life long disability for the patient and huge economical consequences for the community.

REFERENCES:

1. Milan Stevanovic, Management of Established Volkmann's Contracture of the forearm in children. *Hand Clin* 22 (2006) 99-111