

통증 및 근골격재활

게시일시 및 장소 : 10 월 18 일(금) 08:30-12:20 Room G(3F)

질의응답 일시 및 장소 : 10 월 18 일(금) 10:00-10:45 Room G(3F)

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Sudden lymphedema during the upper extremity motor training

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Introduction

A 19 year old male patient's left forearm started to swell suddenly in the middle of occupational therapy. He was diagnosed as anterior cord syndrome after the cervical level spinal cord injury after the fall during a practice for the back handspring technique in August 2018. He had no other past history of operation, medical history.

Clinical feature

At the time of unilateral forearm edema, there were no traumatic history as well as a bug bite or irritative material contact history. In the physical exam, circumference of left forearm was 1.5 centimeter longer than other side with redness and heatness. There were no pain and tenderness. He was on the course of high intensity upper extremity exercise to increase his motor grade. So firstly, we had to rule out a fracture despite of no traumatic incidence. Secondly, as he had evident local inflammation signs, we checked the needs to start the antibiotics. Lastly, there were possibilities of delayed onset muscle soreness or rhabdomyolysis because the symptom developed after the forearm muscle strengthening exercise.

Diagnosis

He had a normal range of CRP, WBC, D-dimer, muscle enzyme including creatinine kinase, myoglobin. In the plain x-ray of forearm lesion, there were no cortical irregularity indicating any sign of fracture. At the thermography, his left forearm was 2 °C higher than the other side. From the 3-phase bone scan, his left extremity had diffuse increased blood perfusion without asymmetry in the bone setting and finally diagnosed as lymphedema. His arm was wrapped up with elastic bandage, and the pneumatic compression was added to his schedule. He was told to maintain the affected limb elevated position and two days later the arm lost its swelling and heatness just before the lymphoscintigraphy exam.

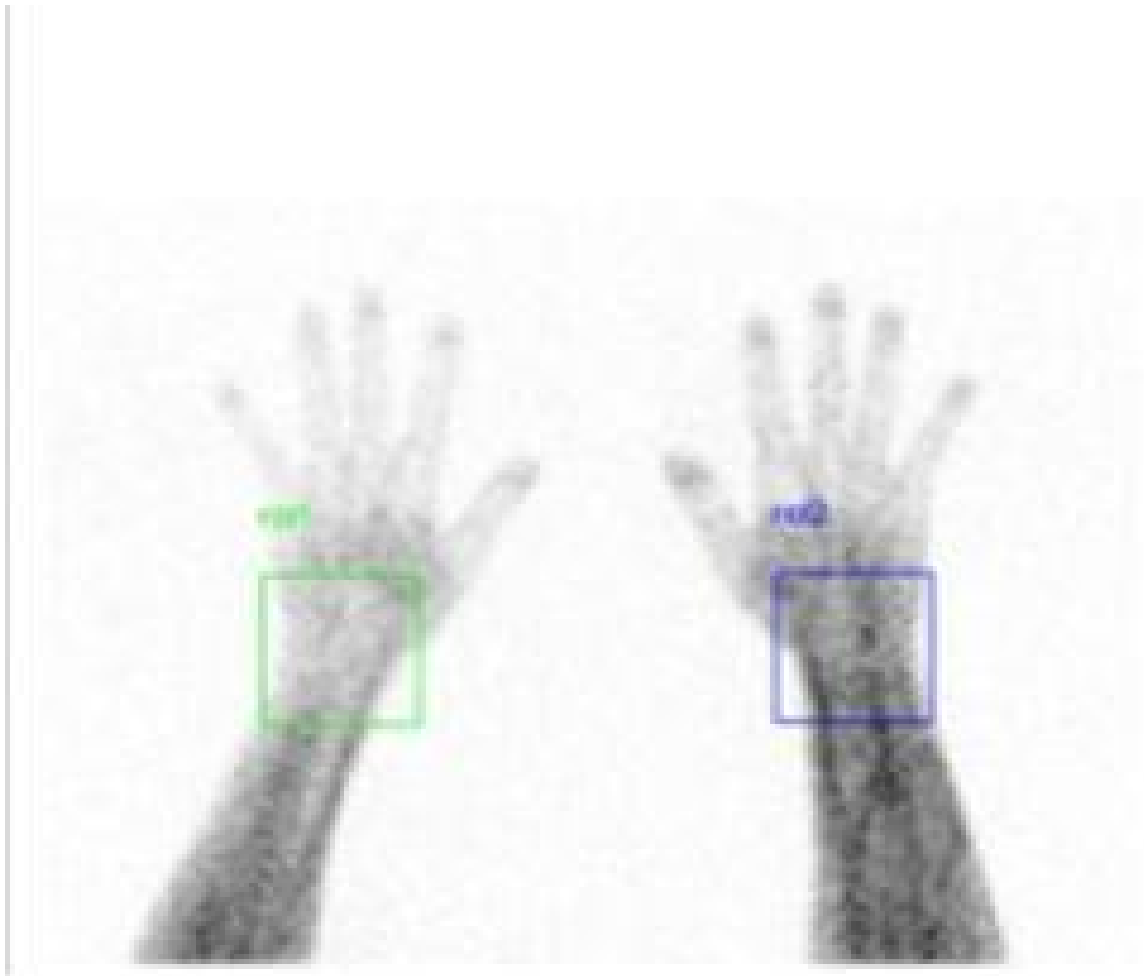
Discussion

As his symptom got better before the final diagnostic exam done, his diagnosis left as inconclusive. When sudden progress of unilateral limb swelling was reported, we checked his blood exam results are within normal limits and the images had no sign of fracture. The

prompt intervention as the pneumatic compression, wrapping up with elastic bandage, elevation of affect limb are easy and essential to ease the lymphedema.



<Figure-1> Sudden swelling of left arm (left), After the full recovery from the lymphedema(right)



<Figure-2> 3-phase bone scan revealing the increased blood perfusion on left forearm