

Movement control order in Malaysia, vitamin D deficiency and pediatric pathological neck of femur fracture: A case report

¹Zafir A; ¹Nazrin R ¹Adam R; ¹Yunn CH; ¹Fauzi J; ¹Mardhiyah N
¹Department Of Orthopaedic Hospital Banting

INTRODUCTION:

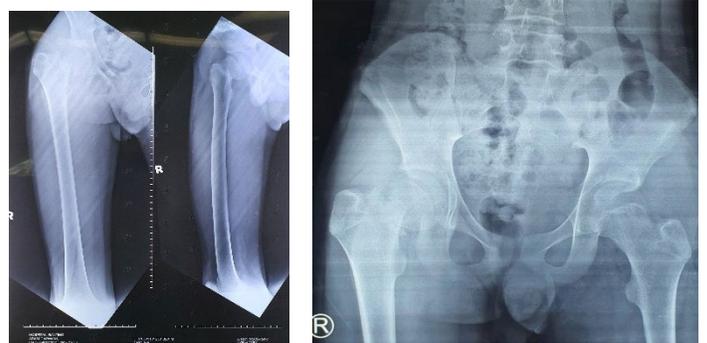
Pediatric femoral neck fracture is an exceedingly rare injury. Suspicion of pathological fracture usually arises when there is low energy trauma and with thorough history taking. During the Movement Control Order (MCO), many children are bounded to home, with lack of activity and sun exposure, which leads to acquired vitamin D deficiency. We would like to report a case of pathological neck of femur fracture with underlying vitamin D deficiency.

REPORT:

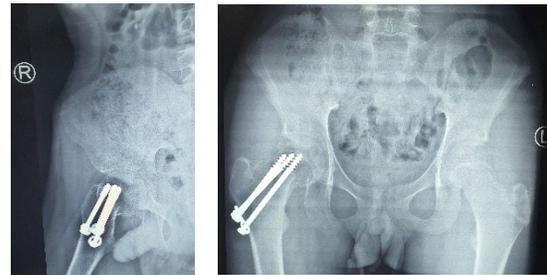
A 14-years old male presented with chief complaint of pain on the right hip for 2 weeks. He had trivial fall and was sent to a nearby hospital for checkup. However, patient was discharged from Emergency Department despite persistent hip pain and inability to ambulate. His family then came to our center to recheck his condition.

Examination revealed tenderness over the right hip with shortened and external rotated attitude. X ray right hip showed neck of femur fracture Delbet type II.

He underwent open reduction and cannulated screw fixation over the right neck of femur using Smith-Petersen approach. Intra operatively, we noted that the bone was soft and the screw fixation necessitated usage of washer. We suspected pathological cause of the fracture. Upon further history, he stayed at home with minimal physical activity with little exposure to the sun since MCO in Malaysia. His serum Vitamin D (25OHD) low and serum PTH were high, 15.3 nmol/L and 9.0 pmol/L respectively.



Preoperative X-ray



Post operative X-ray

He was further sent for Bone Mineral Density test and he obtained an abnormal Z-score (-4.4). He was referred to medical department for further workup and was diagnosed as vitamin D deficiency's rickets

CONCLUSION:

Suspicion of pathological cause in this case was high, because of trivial fall and history of lack of sunlight exposure during MCO. Less exposure to sunlight, a major source of vitamin D, has become an important factor of vitamin D deficiency,

REFERENCES:

1. M Wade et al, Pathologic femoral neck fractures in children, Am J Orthop (Belle Mead NJ) 2009 Feb;38(2):83-6