

## A SILENT BREAK: STRESS NECK OF FEMUR FRACTURE

Sharifah Nor Tasnim Alsagoff<sup>1</sup>, Woo Huey Mey<sup>1</sup>, Shahrul Hisham Sulaiman<sup>2</sup>, Satriya Sabir Husin Athar<sup>1</sup>

<sup>1</sup>Selayang Hospital, <sup>2</sup>Universiti Teknologi MARA

**Introduction:** Femoral neck stress fractures (FNSFs) in healthy young individuals are uncommon. When occurred, its usually in long-distance female runners and military recruits. Early diagnosis remains elusive with negative radiograph findings which increases the likelihood of fracture displacement, leading to avascular necrosis of femoral head.

**Discussion:** A healthy 26-year-old female police trainee presented with gradual left groin pain since running a cross country race two months prior, exacerbated with weight bearing. She resumed her training which involve marching despite controlled by regular analgesia. At one incident, she heard a 'pop' sound leading to severe left groin pain and unable to bear weight. Examination shows shortened limb with hip joint tenderness. Pelvic X-ray revealed a displaced left neck of femur fracture, which was then fixed with three screws. Subsequent follow up at six months noted normal ambulation without pain.

**Conclusion:** FNSFs comprises 3 % of sport-related stress fractures. It is common in young female runners or military recruits resulting from fatigue loading of femoral head and weakening of hip abductors. Presenting symptoms of vague groin pain may deter diagnosis until a complete fracture occurs. Hence studies proposed a high index of suspicious in young female long-distance runners and military recruit with these symptoms. As radiographs done at early presentation may have no or subtle osseous changes necessitating further imaging with magnetic resonance imaging (MRI). As better prognosis is seen in incomplete fractures up to 67% than displaced fractures; early detection of FNSFs are vital. Early management of fracture can prevent complication of avascular necrosis of femoral head especially in young adults which subsequently warrants total hip replacement.