practice, and regularly works in regional, rural, and remote areas.

She reads avidly. She is involved in professional development activities to ensure her practice is up to date with current developments in the specialty.

She loves being a mother. Caring for her children gives her unspeakable joy. The children saw her enthusiasm and passion in serving patients and people and have chosen to follow a career in medicine.

Corresponding Author: Fatima Ashrafi

Corresponding Author's email: *fashrafi@yahoo.com*

Neck Of Femur Bone Stress Injuries in Infantry Trainees: A synopsis and presentation of two case studies.

Mrs Carney Garland[1]

1 Serco, Singleton, Australia

Abstract

A neck of femur stress fracture is a high risk bone stress injury especially in young fit, healthy individuals. A neck of femur bone stress injury (NOF BSI) usually develops due to overtraining and cumulative loading. Susceptible individuals may have a reduced capacity to manage the relative increases in load associated with Infantry training. An increase in training load, volume and intensity commonly occurs in the 3-4 week period prior to initial presentation of hip pain.

A cluster of these bone stress injuries was noted at the School of Infantry during 2016/17. In 2018 a collaborative effort was made to identify potential causative factors and clinical guidelines for treatment and management as well as implementing changes to the training and PT program. This is a difficult task: there is no simple answer explaining the increased incidence of these injuries and therefore hard to prevent them from happening in the first instance. That said, a number of collective changes were made to the training program at the Australian Recruit Training Centre and School of Infantry. A clinical pathway was created to assist staff when infantry trainees presented with hip pain. An education program was put into place for all staff and trainees at the School Of Infantry. Interestingly the collective of these changes brought about a complete 100% reduction in the occurrence of NOF BSI during 2019. However there has been a resurgence in NOF BSI in 2020, particularly after the initial period of lock down from COVID 19.

The danger with these injuries is the potential for a stress fracture to become a true fracture and NOT picking them up in the early stages of BSI. Presenting symptoms for a NOF BSI can be vague and nondescript. Not all trainees present with functional deficits, however most will present with an antalgic gait. As there is no one clinical test to diagnose a NOF BSI, a thorough history and clinical assessment is used to establish a degree of suspicion for the medical staff to refer for MRI, which is the preferred investigation to identify these injuries.

Once diagnosed a NOF BSI can be well managed with conservative Physiotherapy and rehabilitation.

There has been a total of 31 NOF BSI from 2016-21 inclusive (4 female and 27 male)

This presentation will discuss NOF BSI, with specific reference to the School of infantry incidence over the past 5 years, the injury prevention and education in place and will present 2 very different case studies.

Biography

Carney Garland graduated in 1989 with a Bachelor of Applied Science in Physiotherapy. She has worked in the public hospital system in New South Wales and the private sector in the Northern territory, including providing physiotherapy to the people of Groote Eylandt. Leaving the Territory, she joined Singleton Health Centre at the School Of Infantry in 2002, where she continues to work in a clinical role. Carney has a passion for Injury Prevention and has worked towards reducing preventable injuries through the course of her career, doing clinical Research from 2012 -14 which assisted in establishing an injury prevention program at the School Of Infantry. In 2016 there was an influx of bone stress injuries in the neck of femur in Infantry trainees, which has led her to focus on these injuries. Her aim has been to assist in identifying plausible causative factors, identifying the injuries as early as possible and and managing them with current evidence based treatment. Her work in this area has resulted in being presented with an Australian Defence Force Silver Level Commendation in 2018. She would like to take this opportunity to share some of her findings over the past few years.

Corresponding Author: Carney Garland

Corresponding Author's email: *carney.garland@defence.gov.au*