

## Case Report: Rare Case of Fat Embolism Syndrome in Isolated Open Tibia Fracture in Malaysia

<sup>1</sup>Ahmad Amir Haziq J; <sup>1</sup>Muhammad Farrez MY; <sup>1</sup>Mohd Azahari I; <sup>1</sup>Abdul Muhaimin A;  
<sup>1</sup>Orthopaedic Department, Hospital Tanjong Karang

### INTRODUCTION:

Fat embolism syndrome (FES) is a life-threatening complication developed in patients with orthopedic trauma, especially long bone fractures. The diagnosis of fat embolism is made by clinical features alone with no specific laboratory findings. FES has no specific treatment and requires supportive care, although it can be prevented by early fixation of bone fractures. We report an isolated open tibia fracture complicated with FES which unable to be found in other literatures in Malaysia.

### REPORT:

A 20 years old gentleman, with no underlying health problem involved in a motor vehicle collision. He sustained an open right tibia fracture (Figure 1 & 2) with no associated injuries. Patient was admitted and planned for wound debridement for the next day.



Figure 1: Right Leg



Figure 2: X ray Right Tibia/Fibula

On day 2 of admission, the patient was disoriented not responding to verbal command. His saturation dropped to 90% under room air. Tachycardic with heart rate of 110 beats per min. Supportive care was given. Bloods investigation shows reduces in platelets and hematocrits level. Arterial bloods gas noted PO<sub>2</sub> of 67%. Wound debridement and external fixation were done immediately.

In the following days, we observed petechial rashes over the axilla and chest region which helps to convince our diagnosis. The patient however, was recovering well. He was able to response to command, not tachycardic and no longer needing oxygen supports. He was discharged on day 3<sup>rd</sup> postoperative day and planned for internal fixation in the following weeks.



Figure 3: Petechial rashes over axilla and chest

### CONCLUSION:

Fat embolism syndrome (FES) is not uncommon phenomenon following any long bone fracture. We should always be conscious so that FES can diagnosed early and appropriate supportive measures started immediately.

### REFERENCE:

- 1) Nattaphol Uransilp. Fat Embolism Syndrome: A Case Report and Review Literature