



Fat Embolism Syndrome : Case Report in Fracture Neck of Femur

Dr. Sukhjeet Bawa

3rd year resident Deptt. Of Orthopaedics, Mahatma Gandhi Medical College , Jaipur (Raj.)

Dr. S P Gupta

Professor Of Orthopaedics department, Mahatma Gandhi Medical College , Jaipur

Dr. Abhishek chaudhary

2nd year resident Deptt. Of Orthopaedics, Mahatma Gandhi Medical College , Jaipur (Raj.)

ABSTRACT

Introduction : Fat embolism syndrome is a rare clinical condition associated with trauma, particularly of long bones. FES after fracture of neck of femur is uncommon. (1)

Case Report : We are presenting a case of 21 year male who had a history of fall from tree. Suffered from FES post operation of fracture neck of femur with CC screws .

Conclusion : Fat embolism can occur even even in case of fracture neck of femur so very post operative case should be monitored for signs and symptoms of fat embolism for early diagnosis and better out come.

KEYWORDS

Fracture Neck , Fat embolism , Rare .

Introduction:

Fat embolism syndrome is a rare clinical condition associated with trauma, particularly of long bones. FES after fracture of neck of femur is uncommon. (1)

Fat embolism syndrome (FES) occurs when embolic fat macroglobules pass into the small vessels of the lung and other sites, producing endothelial damage and resulting respiratory failure (acute respiratory distress syndrome (ARDS-like) picture), cerebral dysfunction and a petechial rash.It can be difficult to diagnose. (2)

Fractures - closed fractures produce more emboli than open fractures. Long bones, pelvis and ribs cause more emboli. Sternum and clavicle furnish less. Multiple fractures produce more emboli. (3)

Orthopaedic procedures - most commonly, intramedullary nailing of the long bones, hip or knee replacements. (3)

Case Report:

We are presenting a case of 21 year male who had a history of fall from tree. When he came to emergency he was conscious and oriented , he was complaining of severe Pain in Left hip And on X-ray he was diagnosed with Fracture Neck of femur.

Next he was operated for the same with CC screws . The patient was comfortable few hours after surgery then he develop fever (102 F) And after few hours he develop symptoms of respiratory distress his SpO2 was 35 at room air and was disoriented and drowsy .

On Examination:

- Bilateral Air entry decreased
- Basal crepts heard.
- Fever of 102 F.
- SpO2 with oxygen mass was 65 % And on room Air SpO2 was 35%.
- Heart rate was 142 beats/min.

X-Ray Finding: Snow storm appearance in Chest X-Ray (Fig1)

Method : HRCT And CECT : Of Thorax Fig (2)

1. Right lower lobe consolidation- collapse with moderate right lobe plureal effusion.
2. Minimal left plureal effusion with basal pneumonitis.

Laboratory investigation:

ABG:

SpO2 =55

D-Dimer - 0.9 mg/L

Diagnosis: was made by following criteria:

1. Modified Gurd and Wilson’s criteria. (5)
2. Schonfeld’s criteria. (6)

Treatment:

1. Immediate Intubation and Ventilator support.
2. I.V Fluids And Input-Output charting .
3. Steroid
4. Gradually the Patient was weaned off from ventilator.



Fig. 1

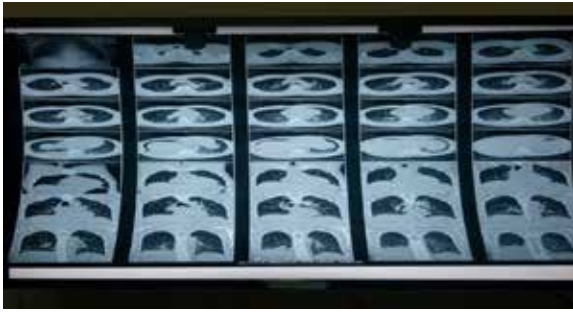


Fig.2

Reference:

1. J Anaesthesiol Clin Pharmacol. 2014 Jul-Sep; 30(3): 412–414.
2. Fat Embolism Syndrome; Wheeler's Textbook of Orthopaedics, 2012.
3. Stein PD, Yaekoub AY, Matta F, et al ; Fat embolism syndrome. Am J Med Sci. 2008 Dec;336(6):472-7.
4. Zhou F, Ji J, Song Q, et al; Pulmonary fat embolism and related effects during femoral intramedullary surgery: An experimental study in dogs. Exp Ther Med. 2013 Aug;6(2):469-474. Epub 2013 Jun 5.
5. Gurd AR, Wilson RI. The fat embolism syndrome. J Bone Joint Surg Br. 1974;56:408–16.
6. Schonfeld SA, Ploysongsang Y, DiLisio R, Crissman JD, Miller E, Hamerschmidt DE, et al. Fat embolism prophylaxis with corticosteroid. A prospective study in high-risk patients. Ann Int Med. 1983;99:438–43.