

Post-Traumatic Fat Embolia in Resuscitation

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Abstract

Original Research Article

Fat embolism constitutes a severe complication in traumatology, it is often underestimated in the emergency environment, which leads to a diagnostic delay which compromises the vital prognosis. The objective of this work is to determine the epidemiological profile, clinical and paraclinical presentation, therapeutic management and evolution of patients with fat embolism syndrome. Retrospective descriptive study on 08 cases of fat embolism collected in the intensive care unit of the Avicenne military hospital in Marrakech over 4 years from January 2016 to December 2019.

Were included in this study: All patients who presented a fat embolism either before or after orthopedic surgical treatment. In our studies the average age was 38.6 years and the sex ratio was 5/3. According to Gurd's diagnostic criteria, 100% respiratory failure was found; 87.5% petechiae and 87.5% neurological disorder.

Keywords: Traumatology, Avicenne military hospital, Gurd's diagnostic, Resuscitation.

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INTRODUCTION

Fat embolism constitutes a severe complication in traumatology, it is often underestimated in the emergency environment, which leads to a diagnostic delay which compromises the vital prognosis [1].

Its diagnosis is often difficult due to its polymorphic clinical presentation, the absence of specific paraclinical examinations and the existence of fulminant or incomplete forms that can be confused with other post-traumatic pathologies [2].

Treatment of constituted syndrome is purely symptomatic.

Prevention remains the essential basis in the management of fat embolism.

The objective of this work is to determine the epidemiological profile, clinical and paraclinical presentation, therapeutic management and evolution of patients with fat embolism syndrome [2].

MATERIALS AND METHODS

Retrospective descriptive study on 08 cases of fat embolism collected in the intensive care unit of the Avicenne military hospital in Marrakech over 4 years from January 2016 to December 2019.

Were included in this study: All patients who presented a fat embolism either before or after orthopedic surgical treatment.

DISCUSSION

In our studies the average age was 38.6 years and the sex ratio was 5/3.

According to Gurd's diagnostic criteria, 100% respiratory failure was found; 87.5% petechiae and 87.5% neurological disorder [3-5].

As well as fever in 37.5% ; tachycardia 62.5% ; anemia 75% ; thrombocytopenia 50% ; oligoanuria 25%.

We note a bilateral interstitial syndrome with micro or macro-nodular opacity (3rd to 4th day); Scarred "ground glass" images (late, day 15 and after). These images, falling within the non-specific framework of ARDS, are suggestive of a fat embolism, in a traumatic or postoperative context, in the absence of pleural effusion or pulmonary contusion [6-10].

In our series, 6 cases (75%) presented alveolar-interstitial infiltration while 2 patients had a discrepancy between respiratory symptoms and chest imaging.

There is no specific treatment for fat embolism, therefore prevention, early diagnosis and adequate

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symptomatic treatment are of paramount importance [11, 12].

In our study, all patients benefited from immobilization upon admission to the emergency room, [13-15] analgesia, oxygen therapy and maintenance of blood volume by filling with isotonic saline, associated with hemodynamic monitoring [16-20] BP, ECG, saturation).

CONCLUSION

Fat embolism is a serious and relatively rare complication, observed most often following multiple trauma including several long bone fractures, or revealed in the perioperative setting of orthopedic surgery.

Treatment is essentially symptomatic, hence the importance of prevention which includes: early immobilization of fracture sites, optimal analgesia and maintenance of effective blood volume.

Note that its frequency seems to have recently decreased.

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