



BUBBLE, BUBBLE, TOIL AND TROUBLE!

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INTRODUCTION

Amniotic Fluid Embolism (AFE) is a rare obstetric emergency in which amniotic fluid enters the maternal circulation to trigger serious adverse reactions leading to cardio-respiratory collapse and massive bleeding. It has a high morbidity and mortality rate. Risk factors for developing AFE include multiparity, advanced maternal age, male fetus and trauma.

CASE REPORT

We report a 31 year old lady, gravida 3 para 2+1 at 37 weeks gestation who became unconscious and stopped breathing at home after a witnessed episode of stiffness over the hands and feet and laboured breathing. She had a history of persistent proteinuria and anaemia, but was never hypertensive. She received pre-hospital CPR for 30 minutes en route to the ED. A resuscitation team consisting of Emergency, Anaesthesiology, Obstetric and Paediatric teams were on standby. Upon arrival, CPR was continued and copious blood-stained secretion was seen in the oropharynx during intubation. Peri-Mortem Caesarean Section was performed and baby was delivered with an Apgar Score of 0 and actively resuscitated. The baby revived after 20 minutes and care was transferred to NICU, but later pronounced dead at 28 hours of life. Simultaneous maternal resuscitation was continued throughout with 2 transient episodes of return of spontaneous circulation but she was pronounced dead after a total of 80 minutes CPR. Post mortem revealed an amniotic fluid embolism as the cause of death.



Figure 1:
multipdisciplinay
team doing
resuscitation in
red zone

DISCUSSION AND CONCLUSION

Amniotic Fluid Embolism (AFE) continues to be a leading cause of maternal death. Symptoms are sudden and devastating, making early detection and diagnosis a challenge. It may present with maternal collapse, associated with hypoxaemia, hypotension, dysrhythmias, and disseminated intravascular coagulation (DIVC). The time-critical nature of this condition weighs heavily on maternal and fetal prognosis. 50% of patients die within the first hour of onset of symptoms and about two-third within five hours of the event with high incidence of severe and permanent neurological damage among survivors. Management of AFE primarily supportive and resuscitative. This includes oxygen administration and control of airway with tracheal intubation, fluid resuscitation to counteract hypotension and hemodynamic instability and correcting coagulopathy. In the case of arrested pregnant mother beyond 20 weeks gestation, peri-mortem caesarean section is beneficial and preferably achieved within 5 minutes of arrest, the aim of which is primarily to improve maternal circulation during resuscitation effort. Despite rigorous resuscitation, prognosis remains poor and maternal mortality approaches 80%. Cause of death is most often determined during post mortem examinations. The most significant pathologic findings at autopsy are limited to the lungs when fetal squamous cells are found in the maternal pulmonary circulation, as was demonstrated in this case (figure 2 and 3)

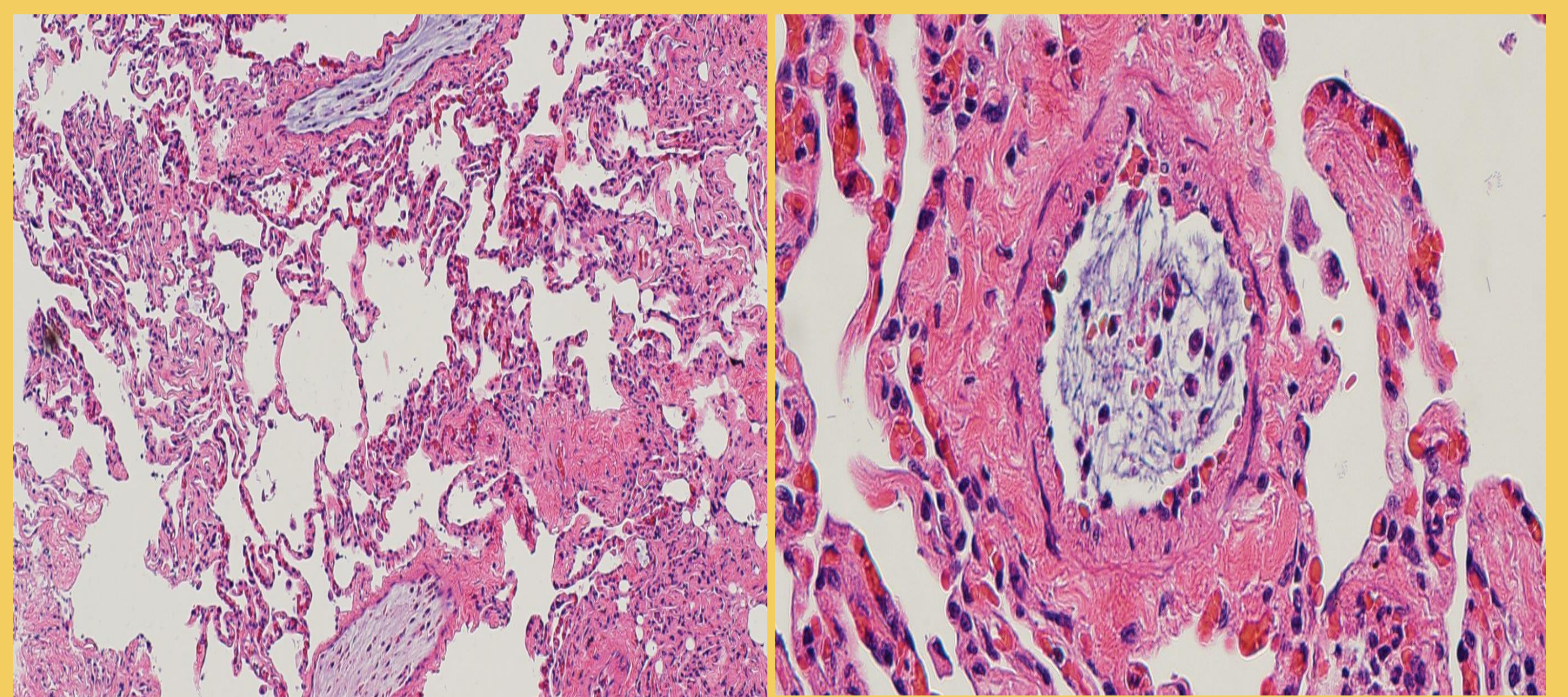


Figure 2 and 3 : Amniotic fluid components, mainly mucin and amorphous eosinophils, were found in a large number of pulmonary small blood vessels and capillaries (H&E stain x100, x40)

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