

Acute Muco- obstructive progressive lung collapse in a post caesarean section patient : A case report

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INTRODUCTION

The maternal respiratory system undergoes major physiological change to meet the maternal and fetal demands imposed by pregnancy. Clinical acumen and alertness is required for a clinician to recognize any respiratory pathology in pregnancy as normal physiological changes itself can mimic certain respiratory diseases. Underlying respiratory morbidities such as bronchial asthma, pre-eclampsia, pulmonary embolism cause enormous burden to the maternal respiratory system and can negatively effect the maternal and fetal outcome(1).We describe a case of progressive lung collapse in a patient with severe pre-eclampsia who had undergone caesarean section .

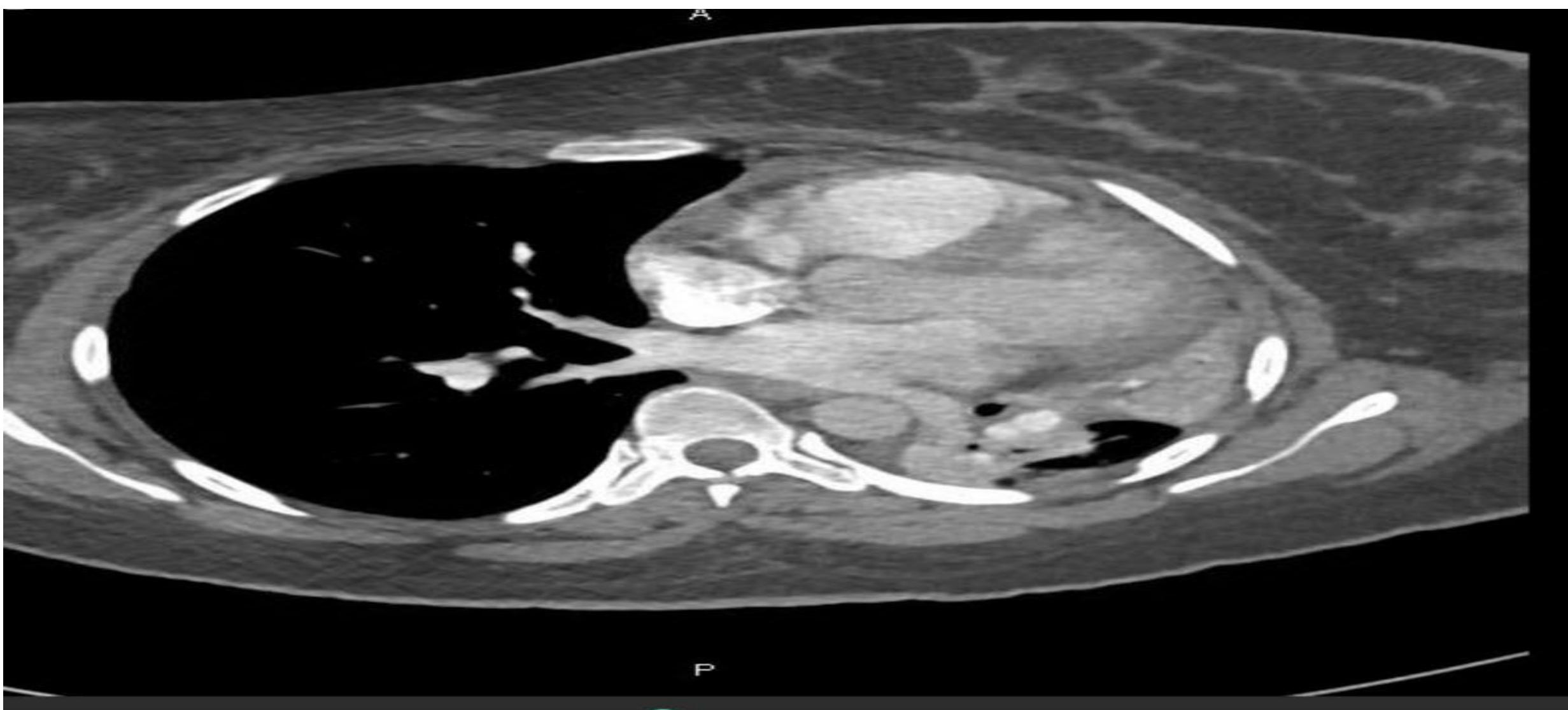
CASE HISTORY

A 23 year old, primi gravida, at 38 weeks of gestation preeclampsia without severe features. She had an upper respiratory infection 2 weeks prior to admission. Started on oral antihypertensive on admission induction of labour was initiated. she was taken for emergency caesarean section under spinal anesthesia for failed induction of labour. Immediate postoperative period patient developed sudden onset of breathlessness with tachypnoea, tachycardia and hypoxia. Chest examination revealed decreased air entry in the left side of the lung. Initial working diagnoses

- postoperative atelectasis
- peripartum cardiomyopathy
- pulmonary embolism.



Chest X-ray –increased broncho-vascular markings, Left lung collapse



CT pulmonary angiogram- Ruled out pulmonary embolism , rapidly progressive left lung collapse when compared to initial CXR.

ECHO normal

Emergency bronchoscopy performed A large thick mucus plug was noted to be blocking the left bronchus obstructing the left bronchial tree in total.

Aspiration of the mucus plug was done using saline flush and N-Acetyly cysteine and ensured patency of the airway.

DISCUSSION

Mucus plugging of the respiratory tract is associated with increased morbidity and mortality in pregnant as well as in non-pregnant patients(2). Postoperative patients are more at risk for mucus plugging due to decreased ventilation and dehydration. In this patient pre-eclampsia with operative intervention with an underlying subclinical respiratory tract infection had increased its risk tremendously resulting in progressive lung collapse.

A cumulative effect of dehydration, infection and inflammation with impaired chest movement due to caesarean section had lead to accumulation and inspissation of mucus . This has resulted in subsequent bronchial plugging and impaired oxygen exchange(3). This condition should be considered as an emergency situation which requires urgent bronchoscopy and clearing of mucus plug in order to avoid further deterioration of the patient.

CONCLUSION

A mucous plug in the central pulmonary bronchus is a life threatening situation, which needs immediate attention and treatment. Treatment depends on the cause and severity of condition. Rapid recognition and urgent bronchoscopy is the treatment of choice. It is imperative that we need to differentiate progressive lung collapse due to mucus plugging from other pulmonary pathology as timely removal of the mucus plug can dramatically improve patient condition and decrease maternal morbidity and mortality

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