

Maternal Mortality Review: A Case of Pulmonary Haemorrhage Due to Ruptured Lung Haemangioma Secondary to Ghon's Focus Invasion

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SUMMARY

Haemangioma can be present in the lung but rarely causes complications unless there is a bleed.

Ghon's focus is a result of post primary tuberculosis. It is a caseating granuloma which invades the surrounding tissue. It is usually benign and may resolve spontaneously without causing complications or active tuberculosis. This case illustrates an unfortunate patient who had a pre-existing haemangioma in the lung which was in close proximity of a Ghon's focus that had invaded on to the haemangioma leading to haemorrhage causing death. This study seeks to highlight the importance of conducting a full post mortem in cases of maternal mortality.

INTRODUCTION

This case report describes the chronology and post mortem diagnostic findings of a woman who died of pulmonary haemorrhage at Day 37 postpartum. There was no known prior significant antenatal or medical history. A literature review of similar cases is also presented.

CASE REPORT

A 27 years old, Para 2 lady, antenatally uneventful except for mild anaemia, presented initially with a history of syncope for about 30 minutes at home on Day 31 postpartum, shortness of breath on D32 and chest discomfort on D33. On Day 36 postpartum, she appeared to be lethargic the whole day and had shortness of breath and chest discomfort again later that night. She had orthopnoea needing 3 pillows to sleep. At 12.30am (Day 37 postpartum), she attempted to breast feed her baby but started gasping. She became unresponsive to call and stopped breathing a few minutes later. On admission to the casualty, she was cyanosed, unresponsive, vital signs not recordable and GCS score 3/15. Cardiac monitor showed asystole. She was immediately intubated and CPR commenced but unsuccessful. Patient was pronounced dead at 2.30am (Day 37 postpartum). Post mortem examination revealed the final cause of death as massive pulmonary haemorrhage from a ruptured lung haemangioma due to an invading Ghon's focus.

DISCUSSION

There are few documented cases of fatal pulmonary haemangioma in the literature. A case recently reported in Japan discussed on the death of a 73-year-old woman with a previously undiagnosed cavernous haemangioma of the right lung which had led to a local intrapulmonary haemorrhage with secondary bleeding into the bronchial tree¹. Another case of pulmonary cavernous haemangioma published in 2003 described a 54-year-old man who presented with massive haemoptysis and was investigated further with CT scan of thorax. He underwent a surgical resection and was well thereafter².

Haemangioma in the mediastinum is rare, accounting for less than 0.5 % of all mediastinal masses³. Lung haemangioma can be either asymptomatic or present with life-threatening symptoms such as massive haemoptysis². In a person exposed to Mycobacterium Tuberculosis bacilli, the primary site of infection in the lungs is called the Ghon focus (primary parenchymal focus)⁴. The macroscopic hallmark of hypersensitivity is the development of caseous necrosis within the Ghon's focus.⁵ In the majority of infected individuals who are immunocompetent, development of specific immunity is generally adequate to limit multiplication of the bacilli; the host remains asymptomatic and the lesions heal, with resorption of caseous necrosis, fibrosis and calcification⁵. Tuberculosis remains clinically and microbiologically latent for many years; as could have happened to this patient⁴.

In this patient, the presence of a Ghon's focus which incidentally had eroded on to the haemangioma in its vicinity had caused pulmonary haemorrhage leading to death in the patient.

The case illustrates the importance of conducting a full post mortem in a case of maternal mortality, as causes such as pulmonary embolism or amniotic embolism are sometimes attributed without a full post mortem. Conducting one may reveal other possible causes as in this patient.

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