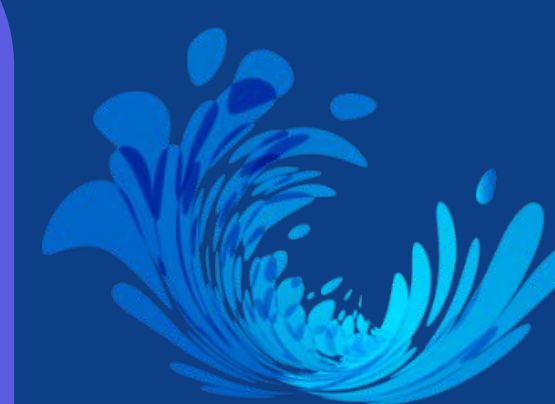


# Hamman's Syndrome in a Six-Hour Second Stage of Labour

Melanie Johnston<sup>1</sup>, Cameron Sharp<sup>1</sup>, Penelope Sheehan<sup>1,2</sup>

1. Eastern Health, Victoria Australia 2. Monash University, Victoria Australia



RANZCOG  
Annual Scientific  
Meeting 2022  
GOLD COAST

Transformation: Making Waves

## Introduction

Hamman's syndrome refers to the phenomenon of pneumomediastinum associated with subcutaneous emphysema, and can be precipitated by the Valsalva manoeuvre associated with pushing in the second stage of labour (1). Approximately 200 cases of Hamman's syndrome in labour have been reported (2). We present a case of Hamman's syndrome, and a literature review to determine if Hamman's syndrome is associated with a prolonged second stage of labour.

## Case Report

A 33-year-old primigravid woman presented in spontaneous labour at 40+0 weeks. She had no past medical history and was a non-smoker. She had an unremarkable antenatal course, aside from prolonged rupture of membranes prior to the onset of labour. The patient declined instrumental delivery or episiotomy until 6 hours into her second stage of labour. She eventually birthed a 3.0kg baby by ventouse extraction with an episiotomy, with Apgar scores of 9 and 8. Postpartum, the patient reported dyspnoea and a hoarse voice, for which a diagnosis of Coronavirus disease was initially suspected. A chest x-ray found pneumomediastinum, subcutaneous emphysema and a small right-sided apical pneumothorax (Figure 1). A Computerized Tomography (CT) scan was performed to rule out underlying Boerhaave syndrome (Figure 2). The patient was treated conservatively with analgesia and supplemental oxygen via nasal prongs, and clinically improved. She was discharged day three postpartum. Subsequent outpatient imaging demonstrated resolution of the pneumomediastinum.

## Imaging



Figure 1 – Chest X-Ray

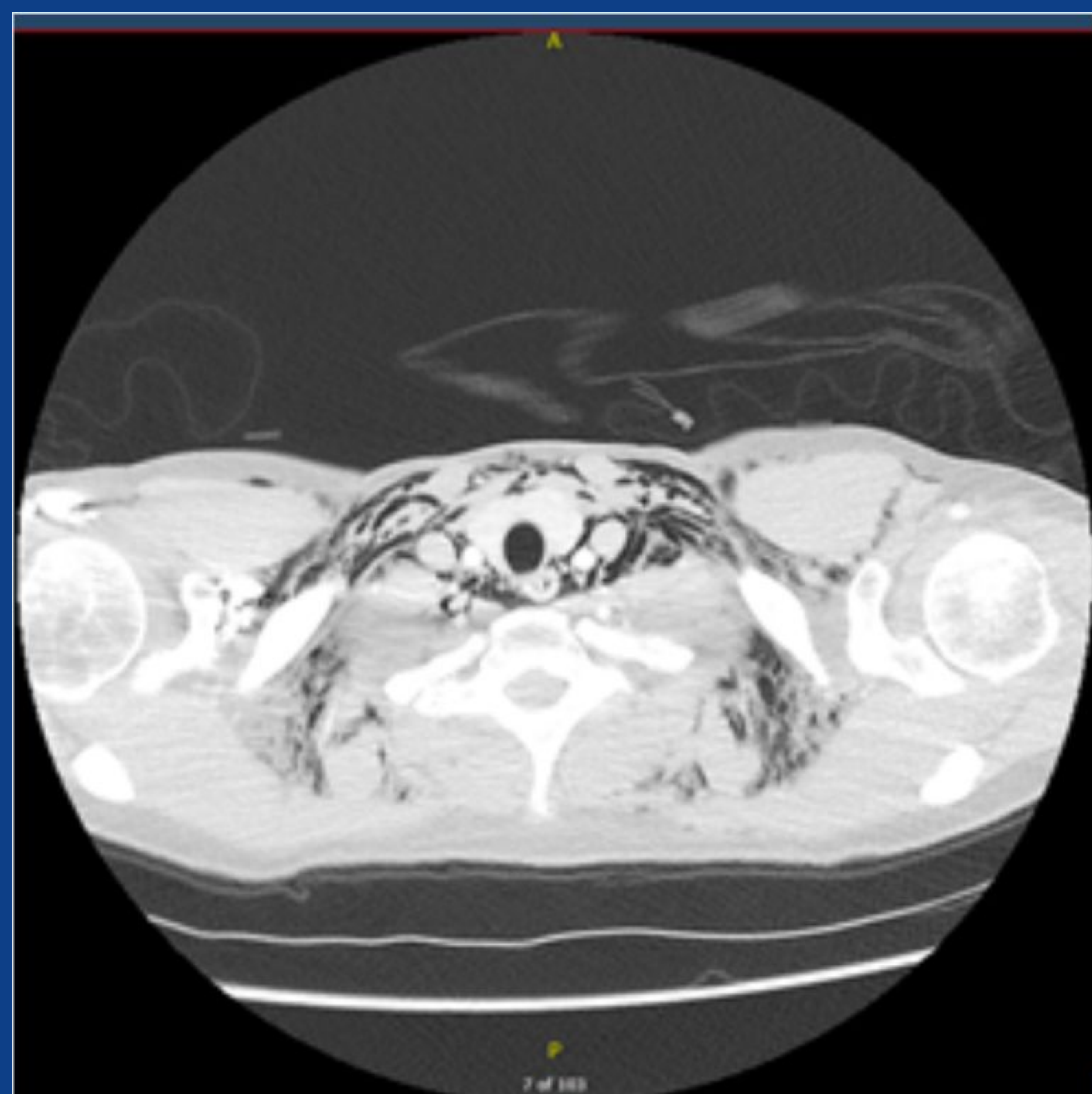


Figure 2 – CT scan

## Literature Review

We proposed that a prolonged second stage of labour may be associated with Hamman's syndrome. A recent review of case reports of Hamman's syndrome found a median length of labour of 7 hours; however the authors did not delineate between the stages of labour (3). We identified 85 cases of Hamman's syndrome in labour in the literature (2-80). Most cases occurred in primigravida in the second stage of labour. Fifty-six of the cases identified the length of the second-stage of labour, the median length was 93 minutes.

## Conclusion

Hamman's syndrome in labour is associated with primigravida in the second stage, however more case reports with labour details are required to determine association with the length of the second stage. Hamman's syndrome is rare and usually self limiting; however, it can be confused with other entities due to its rarity.