

## CASE REPORT

# A Rare Case of Intrapleural Teratoma – Mimicking as Empyema Thoracis

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### ABSTRACT

Teratoma is a type of germ cell tumor that derived from all the three embryonic layers which are endoderm, mesoderm and ectoderm. The commonest site of extragonadal germ cell tumor is at the mediastinum, which accounts for 50-70% of all mediastinal tumor. Intrapleural teratoma is extremely rare, with only one previously reported case to date. Teratoma is usually a slow growing tumor, and symptoms typically presented late as a result of compression or obstruction to the surrounding structures. Due to its rare occurrence, intrapleural teratoma can pose a diagnostic challenge for clinicians. Familiarity with the presentation and imaging findings is therefore of great values which can guide the diagnosis and later the specific management plans. This case report highlights the rare case of intrapleural teratoma and summarizes the presentations and imaging findings of intrapleural teratoma which was initially misdiagnosed as empyema thoracis. Several learning points from this case were outlined.

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### INTRODUCTION

Teratoma is a type of germ cell tumor that derived from all the three embryonic layers which are endoderm, mesoderm and ectoderm. The commonest site of extragonadal germ cell tumor is at the mediastinum, which accounts for 50-70% of all mediastinal tumor. Intrapleural teratoma is extremely rare, with only one previously reported case to date. Teratoma is usually a slow growing tumor, and symptoms typically presented late as a result of compression or obstruction to the surrounding structures. Due to its rare occurrence, intrapleural teratoma can pose a diagnostic challenge for clinicians. Familiarity with the presentation and imaging findings is therefore of great values which can guide the diagnosis and later the specific management plans. This case report highlights the rare case of intrapleural teratoma and summarizes the presentations and imaging findings of intrapleural teratoma which was initially misdiagnosed as empyema thoracis. Several learning points from this case were outlined.

### CASE REPORT

A 33 years old lady, non-smoker and was previously

well presented with history of intermittent cough for the past 1 year. There were also episodes of night sweats with chills over the past 1 year, with worsening symptoms especially during the nighttime. She started experiencing episodes of shortness of breath for the past 2 months with worsening of her symptoms for 2 days prior to admission. No history of hemoptysis. Otherwise, there were no constitutional symptoms and no history of recent travels. She had completed two doses of Covid-19 vaccination.

At the presentation to the Emergency and Trauma Department (ETD), patient was in distress, with blood pressure of 157/105 mmHg and tachycardic with heart rate of 129 beats per minute. Her oxygen saturation (SpO<sub>2</sub>) level is 90-91% under room air. No fever was documented. Chest auscultation showed reduced breath sound at the left lower-mid zone. Otherwise, normal heart sound with no murmurs, abdomen was soft with no palpable mass and no palpable enlarged lymph nodes.

She was immediately put on high flow oxygen mask, and the SpO<sub>2</sub> improved to 95%. Arterial blood gas taken on high flow oxygen mask and it showed mixed acute respiratory failure with compensated respiratory acidosis: pH 7.38 (normal value: 7.35-7.45), pCO<sub>2</sub> 52mmHg (normal value: 35-45mmHg), pO<sub>2</sub> 80mmHg (normal value: 75-100mmHg), HCO<sub>3</sub><sup>-</sup> 30.8mEq/L (normal value: 22-26mEq/L).