

AB005. Thymus in focus: radiologically dissecting thymic masses

Hollie Sarah Campbell¹, Omar Ashour¹,
Alexia Farrugia²

¹Department of Clinical Radiology, Basildon University Hospital, Mid & South Essex NHS Trust, Essex, UK; ²Department of Clinical Radiology, Essex Cardio-Thoracic Centre, Basildon University Hospital, Mid and South Essex NHS Trust, Basildon, Essex, UK

Correspondence to: Alexia Farrugia, MD, FRCR, EDIR. Department of Clinical Radiology, Essex Cardio-Thoracic Centre, Basildon University Hospital, Mid and South Essex NHS Trust, Basildon, Essex SS16 5NL, UK. Email: a.farrugia@nhs.net.

Background: Anterior mediastinal thymic masses encompass an array of neoplastic and non-neoplastic entities originating from the thymus gland, within the anterior mediastinum. The accurate diagnosis and optimal management of these masses pose significant challenges in clinical practice. This scientific poster aims to provide an in-depth analysis of the diagnostic approach and management strategies. A systematic and integrated approach to the evaluation of anterior mediastinal masses, involves the judicious utilization of various cross-sectional imaging modalities, including computed tomography (CT), magnetic resonance imaging (MRI) and positron emission tomography (PET-CT). Furthermore, the utility and limitations of these imaging techniques in establishing an accurate differential diagnosis will be discussed.

Case Description: The thymic masses we encounter in our institution include but are not limited to thymomas, thymic hyperplasia, thymolipomas, cysts, thymic lymphoma and thymic carcinomas. Associated conditions such as myasthenia gravis are also explored. The diagnostic workup often includes biopsy, either CT-guided or surgical with resection of the mass. In addition, we delve into the challenges encountered in distinguishing benign from malignant thymic masses, the importance of radiological and histopathological findings for accurate diagnosis and appropriate management. Moreover, we outline the significance of tissue sampling for definitive diagnosis and elucidate the evolving landscape of minimally invasive techniques, such as endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) and

mediastinoscopy. The role of immunohistochemistry and molecular testing in establishing the histological subtype and predicting prognosis will also be highlighted, considering tumour stage, patient's age and any comorbidities. The management of anterior mediastinal thymic masses is multifaceted, often necessitating a multidisciplinary approach involving diagnostic and interventional radiologists, thoracic surgeons, medical oncologists and radiation oncologists. We provide a comprehensive overview of the therapeutic options available, including surgical resection, radiation therapy, and systemic therapy, with a particular emphasis on tailoring treatment plans to specific histological subtypes and clinical scenarios.

Conclusions: This scientific poster aims to improve the understanding of thymic anterior mediastinal masses, help enable the identification and recommend further imaging investigations, with the input from histopathologists, thoracic surgeons and appropriate multidisciplinary team meeting referral for discussion, to expedite patient management.

Keywords: Thymoma; thymic epithelial tumours; thymic carcinoma; case report

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. All procedures performed in this study were in accordance with the ethical standards of the institutional and/or national research committee(s) and with the Helsinki Declaration (as revised in 2013). Written informed consent was obtained from the patients for the publication of this case report. A copy of the written consent is available for review by the editorial office of this journal.

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