

Thoracoscopic thymectomy in a patient with pemphigus

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Clinical vignette

The presenting case is a 50-year-old man with pemphigus foliaceus who was found to have a thymoma. Computed tomography (CT) scans revealed a large anterior mediastinal mass, 6 cm in diameter, which was heterogeneous in appearance with no evidence of invasion. CT-guided biopsy confirmed the diagnosis of type AB thymoma. The patient was otherwise functionally independent, with an Eastern Cooperative Oncology Group (ECOG) status of 1 and normal pulmonary function. Informed consent was obtained for a video-assisted thoracoscopic surgery (VATS) radical thymectomy.

Surgical techniques

Preparation and exposition

The patient was positioned supine, with the right side of the chest supported by a pillow. A 5-cm minithoracotomy incision was made in the 4th intercostal space below the right nipple. A soft tissue retractor was then inserted. A 1-cm utility port was inserted through the 4th intercostal space, posterior to the minithoracotomy incision, along the anterior axillary line. A 5-mm camera port was then inserted to accommodate the thoracoscope in the 5th intercostal space along the anterior axillary line. The thoracoscope remained in this port for the remainder of the procedure, and an additional 1 cm access incision was created in the 4th intercostal space in the posterior axillary line.

Operation

The camera provided excellent visualization of the entire

anterior mediastinum. There was no evidence of pleural metastasis on inspection. A peanut mounted on a Roberts forceps was used to lift the edge of the thymic tumor off the pericardium. Unipolar ball-tip diathermy was used to carefully dissect the thymoma from the pericardium, by placing the tip of instrument at the interface of the tumor and normal tissues and applying focal traction to each point of dissection. A power setting of 60-80 watts was used.

The surgical margins included the mediastinal pleura medially, the right phrenic nerve laterally, the innominate vein and thymic horns superiorly, and thymic fat pad inferiorly. The left pleural space was opened to facilitate *en bloc* dissection of the thymoma. The thymic veins were visualised superiorly, and ligated flush against the innominate vein.

In this particular case, the thymic mass was encapsulated, without any breach of the capsule during the procedure (*Figure 1*). Local analgesia was administered through a paravertebral block. Chest drains were placed, and the surgical wounds were closed in three layers.

Comments

This case is of particular interest, as pemphigus foliaceus, which is an autoimmune condition characterised by bullous skin lesions, has a well-documented association with neoplasms such as thymoma, although the exact mechanism remains unclear (2-4). VATS was particularly preferable to a conventional sternotomy for thymectomy, as the patient had significant keloid scarring on his central chest that could be exacerbated by surgical manipulation. Furthermore, VATS is associated with benefits such as postoperative pain, shorter hospital stay, and similar efficacy



Figure 1 Thoracoscopic thymectomy in a patient with pemphigus (1). Available online: <http://www.asvide.com/articles/727>

when compared to transsternal thymectomy (5,6), although large randomised trials with long-term followup are needed to comprehensively compare the oncological outcomes. In our opinion, electrocautery utilising a 3-mm ball-tip has several advantages compared to conventional diathermy techniques. It can contour the dissection plane, has a lower risk of injury to vascular structures, and when on high power, provides 2 to 3 mm of tissue penetration (7).

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Footnote

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