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11<sup>th</sup> International Meeting on General Thoracic Surgery



5<sup>th</sup> Meeting of the Thoracic Oncology, Thoracic Surgery, Techniques & Transplant, Respiratory Nursing and Respiratory Physiotherapy Areas of the Spanish Society of Pneumology and Thoracic Surgery (SEPAR)



10<sup>th</sup> International Workshop on Surgical Exploration of the Mediastinum and Systematic Nodal Dissection



10<sup>th</sup> International Workshop on Surgical Exploration of the Mediastinum and Systematic Nodal Dissection



3<sup>rd</sup> Joint Meeting of the Spanish Society of Thoracic Surgery (SECT)



30<sup>th</sup> Congress of the "Asociación Iberoamericana de Cirugía Torácica" AIACT



## SYSTEMATIC LYMPHADENECTOMY FOR THYMIC TUMORS

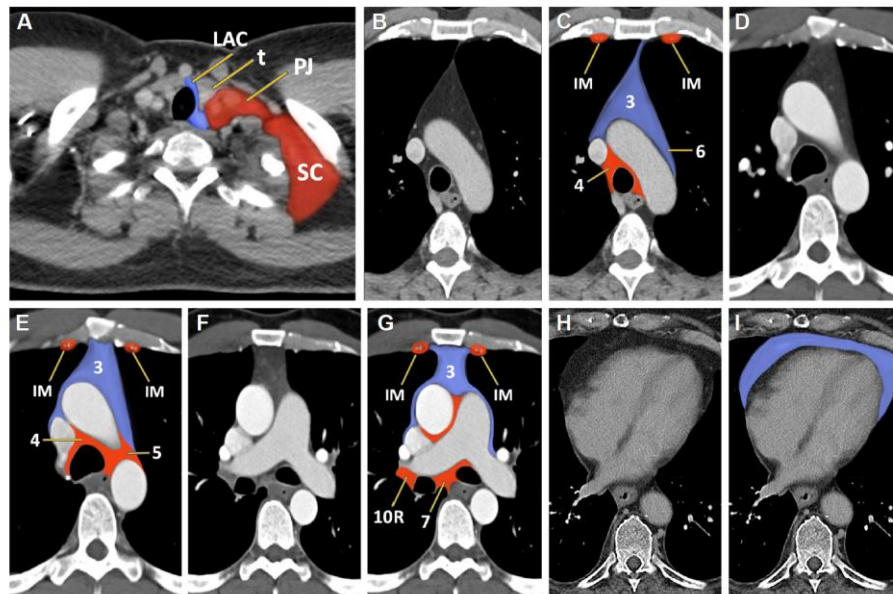
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Systematic nodal dissection for thymic tumors as compared to lung malignancies is less well developed, defined, and adapted. Formal nodal mapping and the TNM staging is defined by the ITMIG/IASLC classification, the nodal mapping defines N1 nodes : Anterior Region (N1) (Anterior Mediastinal and Anterior Cervical Nodes) and N2 nodes: Deep Region (N2) (Middle Mediastinal and Deep Cervical Nodes)

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IASLC Thymic Epithelial Tumor Staging Project 1679



**Figure 2.** Native and annotated axial computed tomography images revealing the node groups, marking the boundaries of the anterior (N1) and deep (N2) lymph node levels at the levels of the (A) lower neck, (B, C) aortic arch, (D, E) aorto-pulmonary window, (F, G) main pulmonary artery, (H, I) and base of the heart. Boundaries of the anterior (N1) and deep (N2) level are shaded in blue and red, respectively. IASLC, International Association for the Study of Lung Cancer; IM, internal mammary; LAC, low anterior cervical; PJ, perijugular; SC, supraclavicular; t, thyroid gland. Numbers refer to IASLC node map used for lung cancer.<sup>31</sup> Courtesy of the International Association for the Study of Lung Cancer. Copyright 2023, Aletta Ann Frazier.

Data is consistent that the propensity of nodal spread is primarily impacted on tumor histology primarily, and secondarily on tumor size and invasion. The best prospective data, from Fang et al. where the rate of lymph node metastasis was 2.1% (5/238) in patients with thymomas, 25% (6/24) in those with thymic carcinomas, and 50% (4/8) in those with neuroendocrine tumors (P<.001). Based on World Health Organization histological classification and Union for International Cancer Control T category, patients were divided into a low-risk group (1/192).

0.5%) with T1-2 and type A-B2 diseases and a high-risk group (14/83; 16.9%) of category T3 and above or histology B3 and above tumors for nodal metastasis ( $P < .001$ ). This data may help us define more and less aggressive approaches to nodal dissection in thymic tumors. Additionally, surgical approaches to achieve nodal dissection may need to be adapted if resection techniques are primarily Unilateral VATS/RATS or Subxiphoid. This may include achieving true bilateral access for higher stage tumors and more aggressive histology. Surgically, most N1 disease can be resected if principles of an extended thymectomy are applied, and N2 dissection requires further dedicated dissection.

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