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



Hospital  
Universitari  
Sagrat Cor

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



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)



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" AIAC



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



## **CERVICAL VIDEO-MEDIASTINOSCOPY & EXTENDED CERVICAL MEDIASTINOSCOPY**

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Mediastinoscopy, technique described by Carlens in 1959 [1], allows the exploration of the superior and middle mediastinum through a cervical incision. Over 50 years later, all the manoeuvres described by Carlens are still used today: inspection, palpation, puncture and biopsy of mediastinal tissues. For lung cancer staging, the range of exploration includes: superior and inferior, left and right, paratracheal lymph nodes (nodal stations #2R, #2L, #4R, #4L, respectively), the subcarinal nodes (#7) and the right and left hilar lymph nodes (nodal stations #10R, #10L, respectively), according to the International Association for the Study of Lung Cancer (IASLC) lymph node map [2].

The reliability of mediastinoscopy depends on its thoroughness, based on the number of biopsies performed and the number of nodal stations explored [3]. This accounts for the important heterogeneity in the reported sensitivity and negative predictive value (NPV) that ranges from 0.32 to 0.97 (median of 0.78) and 0.8 to 0.99 (median of 0.91), respectively [4]. In addition to the number of lymph nodes explored and biopsied, the use of a videomediastinoscope could also influence the accuracy of this technique. Video-mediastinoscopy (VAM) provides better visualization of the operative field than conventional mediastinoscopy (CM) and facilitates the teaching process [5]. According on the American College of Chest Physicians (ACCP) systematic review, in pooling the data from 995 VAMs, the median sensitivity was higher (0.89) in comparison with the median sensitivity of 9267 CMs (0.78) [4].

Extended cervical mediastinoscopy (ECM), a technique described by Specht in 1965 [6] and popularized by Ginsberg [7] years later for staging carcinomas of the left lung, can be a good alternative to the classic parasternal mediastinotomy because it allows the assessment of para-aortic and subaortic nodal stations (stations 5 and 6) through the same incision of the standard cervical mediastinoscopy. A part from its main indication, the assessment of the aortopulmonary window in patients with bronchogenic carcinoma of the left lung, this procedure is an excellent

tool to obtain a biopsy of undiagnosed anterior mediastinal tumours or lymph nodes that have not been diagnosed by other methods such as transthoracic needle aspiration or Tru-Cut.

Regarding its results in the staging of left lung cancers, a median sensitivity of 0.71 and NPV of 0.91 have been described [4]. Focusing on the sensitivity of this procedure, when ECM is performed selectively according to the results of CT and PET, the sensitivity increases [8]. This could probably be explained by the higher prevalence of N2-N3 disease in patients with enlarged lymph nodes or abnormal uptake in PET [11].

## References

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