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Mediastinum and Systematic Nodal Dissection
 

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Society of Pneumology and Thoracic Surgery (SEPAR)



3rd Joint Meeting of the Spanish Society of
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30th Congress of the "Asociación Iberoamericana
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10th International Workshop on Surgical Exploration of the
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PATHOLOGIC RESPONSE AFTER NEOADJUVANT IMMUNOTHERAPY IN RESECTABLE NSCLC

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For several decades, many studies have shown that patients with lung cancer treated with neoadjuvant chemotherapy and achieving a pathological response have a significantly improved survival. However, the criteria for how to process and evaluate resected lung cancer samples, or the definition for what is considered a pathological response, including major pathological response (MPR) and complete pathological response (CPR), were not sufficiently defined. Moreover, the increasing number of treatment modalities being explored in the neoadjuvant setting and the need for standardized endpoints have led to the International Association for the Study of Lung Cancer (IASLC) proposing recommendations for the management of surgical specimens after neoadjuvant therapy (J Thorac Oncol. 2020;15:709–740). These guidelines outline detailed recommendations on how to process lung cancer resection specimens and define pathologic response following neoadjuvant therapy. These recommendations are intended as guidance for clinical trials, and a suggestion for good clinical practice to improve the consistency of pathologic assessment of treatment response.

This guide defines the “tumor bed” as the area where the original pretreatment tumor was considered to be located. Identification of tumor bed and correlation with radiology is essential for a correct sampling of the tumor. It is essential that information be provided by the surgical team to the pathologic laboratory on whether the patient received neoadjuvant therapy in order for this specimen processing protocol to be followed.

In the Pathology Department, photographic images should be taken of the cut surface demonstrating the greatest dimension of the tumor bed. The pathologic gross descriptions should also contain an estimate of the percentage of any necrosis present.

The histologic findings include (1) tumoral necrosis, (2) stromal tissue, and (3) viable tumor. These three features should be estimated on the basis of review of the microscopic sections and should sum up to 100% of the tumor bed.

These recommendations provide also definitions of MPR and CPR. MPR is defined as the reduction of viable tumor to the amount beneath an established clinically significant cutoff based on prior evidence according to the individual histologic type of lung cancer and a specific therapy. The historical definition of MPR for all histologic types of lung cancer is less than or equal to 10% of viable tumor. CPR is defined as lack of any viable tumor cells on review of H&E slides after complete evaluation of a resected lung cancer specimen including all sampled regional lymph nodes.

Evaluation of lymph nodes should be done following the same approach used for the resection of lung cancer, reporting percent viable tumor, necrosis, and stroma. Complete pathologic response in a lymph node can be recognized if there is a well defined scar and/or area of tumor necrosis in the absence of identifiable viable tumor cells.

In the absence of more systemic data, these guidelines should be used regardless of the type of neoadjuvant treatment applied.