LUNG CANCER

Paul E. Van Schil, MD, Lawek Berzenji, MD
Department of Thoracic and Vascular Surgery, Antwerp University Hospital, Belgium

With the introduction of the 8th edition of the TNM classification for lung cancer important changes were made in the T and M descriptors [1-7]. Until 5cm, there is an increment of 1 cm for each subcategory. This resulted in the subdivisions T1a-c for tumors until 3 cm, and T2a-b for tumors till 5 cm [3]. For subsolid lesions, only the invasive part is considered to determine the T size [4]. Regarding the M descriptor M1b and M1c were newly defined [6]. M1b represents a single metastasis in one distant organ, and M1c multiple metastases in one or several distant organs . The N descriptor underwent no changes but suggestions were made for specific subcategories of nodal disease for further evaluation and exploratory analysis [5].

For the International Association for the Study of Lung Cancer (IASLC) cancer database, it was recommended to submit patients preferentially by electronic data capturing (EDC) [8]. However, this represents still a minority as currently, more than 30 batch datasets were sent to Cancer Research and Biostatistics (CRAB) for further analysis. These have to be adapted to the specific CRAB data fields. The end of 2021 represents the final cut-off date for data inclusion. Data entered after that date will be utilized for the 10th TNM edition. For the 9th edition data analysis will be performed during the years 2022-2023 with final publications to be expected in Journal of Thoracic Oncology (JTO) in 2024.

At the last Staging and Prognostic Factors Committee (SPFC) meeting in August 2021 proposals were made for possible changes in the TNM descriptors:

T category
- prognostic verification of interlobar pl3
- specific prognosis T3 tumors: chest wall invasion has a worse prognosis, T3a-T3b?
- spread through air spaces (STAS): local spread, how to classify?

N category
- single versus multiple positive nodes:

N1a,b	single (N1a), multiple N1 (N1b) stations involved
N2a1	single positive N2 station without N1 involvement (skip metastasis)
N2a2	single positive N2 station with N1 involvement
N2b	multiple N2 stations involved

- count of positive nodes : better, simpler?

N0=0 N1=1 N2=2-3

- better agreement on station labelling: intraoperative lymph node map, nodal zones; discussion 4R ↔10R, 4,5L ↔10L, 7 ↔10
- how to stage postinduction cases: ypN staging?
- is there a difference in clinical staging between those who are histologically confirmed and those who aren't? c stage ↔ histologic c-stage?

M category
survival analysis by M status with refinement M1b, c:
organ involvement
pattern of organ involvement
number (oligometastases)
volume (size of largest metastatic lesion as surrogate metric of disease volume)

Additional topics:
- reintroduction of Certainty (C) factor: updated definitions to be provided
- resection status: residual tumor (R descriptor), refinement Run = uncertain resection [7]
- TNMX: inclusion of non-anatomic parameters into anatomical TNM
- essential TNM simplified version: distant – regional – localized disease

References

1. Rami-Porta R. Staging Manual in Thoracic Oncology, 2nd edition. International Association for the Study of Lung Cancer, Aurora, CO, USA. Editorial Rx Press, 2016
2. Goldstraw P. J Thorac Oncol. 2016 Jan;11(1):39-51
3. Rami-Porta R. J Thorac Oncol. 2015 Jul;10(7):990-1003
4. Travis WD. J Thorac Oncol. 2016 Aug;11(8):1204-1223
5. Asamura H. J Thorac Oncol. 2015 Dec;10(12):1675-84
6. Eberhardt WE. J Thorac Oncol. 2015 Nov;10(11):1515-22
7. Edwards JG. J Thorac Oncol. 2020 Mar;15(3):344-359
8. Giroux DJ. J Thorac Oncol. 2018 Jun;13(6):801-809