JOURNAL OF THE BELGIAN SOCIETY OF RADIOLOGY

Changes to the 8th Edition AJCC: Staging Head and Neck Cancer

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SHORT ABSTRACT

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In this presentation, selected topics from the changes in the 8th edition of the American Joint Committee on Cancer (AJCC) staging system for head and neck tumors will be discussed.

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KEYWORDS:

Head and neck Cancer; Staging; AJCC; UICC; eight edition

TO CITE THIS ARTICLE:

Pameijer F. Changes to the 8th Edition AJCC: Staging Head and Neck Cancer. *Journal of the Belgian Society of Radiology*. 2022; 106(1): 114, 1–3. DOI: https://doi.org/10.5334/jbsr.2943

Every physician is familiar with the American Joint Committee on Cancer (AJCC) and Union for International Cancer Control (UICC) cancer staging systems. These are based on an anatomical description of a patient's tumor burden in the well-known categories: **T**(umor), **N**(ode), and **M**(etastasis). The radiological implications for head and neck tumors are presented in a recent paper in *Radiology: Imaging Cancer* (2020). To quote that article, 'The many changes made to the head and neck (H&N) chapters of the 8th edition of the AJCC (and UICC) staging manuals have initially resulted in confusion from clinicians and radiologists. These changes reflect the current understanding of pathophysiology of H&N cancers and are necessary to create a more accurate and individualized prognosis for these patients' [1]. One of the most striking changes is the separate staging of human papilloma virus (HPV) associated oropharyngeal squamous cell carcinoma (SCC) from tobacco and alcohol use-associated SCC. In the presentation, four selected topics are discussed, illustrated by multiple examples from daily practice.

1. Oropharyngeal squamous cell carcinoma (OPSCC): Why is it important for a radiologist to be aware of the tumor P16 and HPV status? Lymph node metastases from OPSCC frequently are (predominantly) cystic (Figure 1).

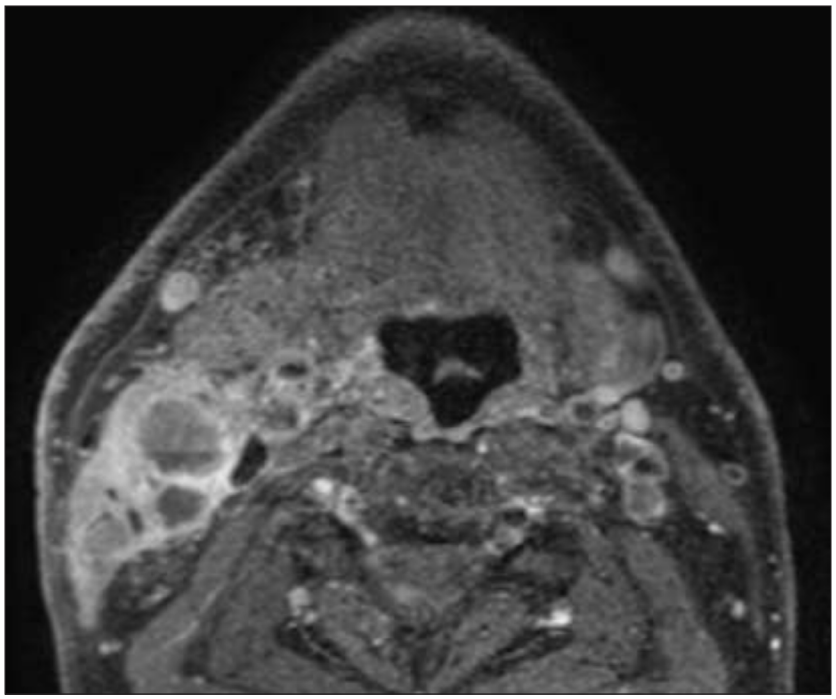

Figure 1 Patient with HPV-related oropharyngeal squamous cell carcinoma (not shown). Axial fat suppressed gadolinium enhanced MR section at the level of the tongue base shows predominantly cystic lymphadenopathy in the right neck (Level II).

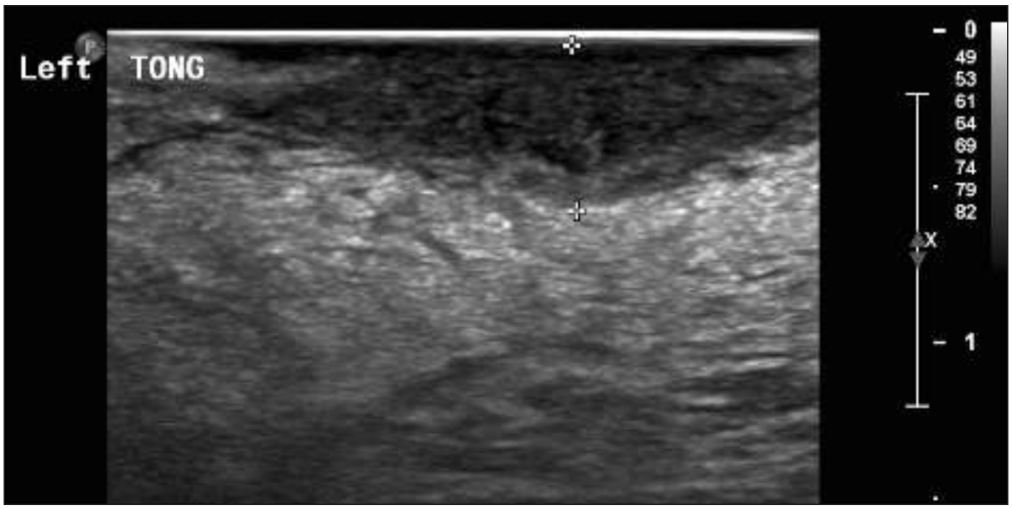

Figure 2 Patient with squamous cell carcinoma of the tongue. Intraoral ultrasound image showing the hypoechoic tongue tumor infiltrating the normal (echogenic) tongue musculature. The distance between the two calipers indicates the depth of invasion (DOI).

2. Unknown primary tumor: At present, 90% of 'unknown primary' tumors are identified as HPV-related oropharyngeal squamous cell carcinomas during work-up.
3. Extranodal extension (ENE): Previously called, *extracapsular extension* or *extranodal spread*, the presence of ENE is associated with worse prognosis and (usually) leads to intensification of treatment, for example, chemoradiation instead of radiotherapy alone.
4. Depth of invasion in oral cavity squamous cell carcinoma: The new criterion 'Depth of invasion' (DOI) will be discussed as well as the possibility to measure DOI in real time using intraoral ultrasound (Figure 2).

COMPETING INTERESTS

The author has no competing interests to declare.

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Submitted: 22 September 2022 **Accepted:** 29 September 2022 **Published:** 18 November 2022