Letter to the Editor

Evidence-based review of treatment options for patients with glottic cancer

Revisione basata sull'evidenza delle opzioni terapeutiche nei pazienti con carcinoma glottico

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We would like to take the opportunity to comment on the recently published article by Hartl et al. in 'Head and Neck' in the November 2011 issue [1]: ''Evidence-based review of treatment options for patients with glottic cancer''. The absence of 'high level evidences' prevents us from reaching definite conclusions on the 'gold standard' therapeutic strategies for the treatment of laryngeal squamous cell carcinoma (LSCC). As highlighted in the article, the main problem is the absence of sufficiently large prospective trials, especially evaluating surgical options. This is probably also due to fragmentation of surgical-oncological activity, which is performed in several centres, whose numbers often remain too low to drawn definite conclusions. Furthermore, many of these centres are not prone to data sharing, which could contribute, at list in part, to overcoming these limits. Such a situation further contributes to the lack of consistency and inhomogeneity in treatment planning, and is reflected by vagueness of the guidelines that sometimes work more as an umbrella for management than as real guidance for treatment planning.

Correct TNM classification of laryngeal tumours [2] is certainly fundamental for treatment planning in patients with LSCC, but in our opinion, and as shown indirectly by this article, a more thorough revision of TNM classification of laryngeal cancer is necessary with two aims:

1. To simplify as much as possible their classification, thus fostering universal employment of this staging system in centres treating laryngeal cancer worldwide.
2. Improve the potential for prognostic stratification, but also for treatment selection, including, for example, objective parameters that are fundamental when indicating conservative surgery.

TNM classification needs to be simplified as evaluation errors by the head and neck surgical oncologist are notably frequent. For example, the authors of the commented article, referring to the series published by Peretti et al. [3], consider LSCCs with paraglottic space involvement as T2, while according to the AJCC should be considered as T3.

On the other hand, appropriate oncological classification must take into account both the anatomo-embryologic and functional complexity of the larynx, and the countless more or less validated treatment options, each with its spectrum of indications and contraindications. With this perspective, also in relation to the paper by Hartl et al. [1], which correctly underlines the lack of high level evidences in treatment planning of glottic cancer, we believe that many points of the present TNM classification should be reconsidered [4-7]:

- the implications for prognosis and treatment selection of a primary or a secondary involvement of the anterior commissure in early glottic cancer, also mentioned in the article under examination;
- quantification of the often subtle difference that exists between impaired motility and vocal cord fixation in T2/T3 carcinomas, and introduction of the concept of arytenoid fixation, which brings significant consequences for prognosis and indications to conservative laryngeal surgery;
- better definition of thyroid cartilage erosion, which is an issue that poses medical-legal problems and disputes in the appropriate choice of adjuvant treatment in T3/T4 LSCC;
- definition of the role of other relevant parameters for prognosis and therapeutic choice, such as cricoid cartilage involvement, and posterior paraglottic vs anterior paraglottic space involvement.

An example of such demands for an improvement in laryngeal TNM classification is also evident from a recently-observed case in our clinical practice. In particular, we diagnosed a glottic LSCC of the middle third of the left vocal cord with impaired motility. A CT scan showed a 0.7 cm subglottic extension and cricoid cartilage erosion. Our multidisciplinary tumour board indicated total laryngectomy with left hemithyroidectomy plus bilateral functional laterocervical neck dissection. The definitive histological examination documented invasion of the cricoid cartilage

without lymph node involvement. TNM classification was T2N0, Stage II. In fact, the 2010 AJCC TNM system classifies glottic LSCC as T4a only in case of thyroid cartilage invasion. Cricoid cartilage invasion, although potentially prognostically more significant, is not mentioned in the TNM of glottic SCC [2]. On the other hand, the same AJCC classifies subglottic laryngeal tumours with cricoid cartilage invasion as T4a, thus confirming its negative prognostic impact. Such discrepancies raised at least 3 issues, all with legal implications. Prognosis of a stage II glottic SCC with cricoid invasion is drastically different from a stage II cancer for initial involvement of, for example, the vocal fold. A stage II glottic SCC should be safely submitted to a conservative (surgical or non-surgical treatment), but the present case should have undergone total laryngectomy since supracricoid surgery and radiochemotherapy would be clearly associated to with lower disease control. According to the main international guidelines [8], in stage II laryngeal SCC adjuvant treatment is not indicated, but in this case the risk of extralaryngeal invasion should require postoperative irradiation.

In conclusion, we fully agree with the authors that larger prospective studies are needed, but we also would like to emphasize the need for a TNM classification more suitable for prognostic stratification and treatment planning of laryngeal squamous cell carcinomas, which also emerges from the currently available data [9].

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