

Editorial

Salvage Surgery in Head and Neck Oncology

Surgery (conventional, laser, endoscopic or robotic) or radiation are – most of the times – equally effective in the treatment of stage I or II squamous carcinoma of the head and neck. State-of-the-art treatment of patients with advanced carcinomas is radical surgical procedure and postoperative radiotherapy or combined chemoradiotherapy. Since the 1990's different modalities of combined chemoradiation have been used aiming to achieve organ preservation in patients with advanced larynx or hypopharynx carcinomas. In spite of the use of modern multimodality treatment, loco-regional recurrences remain the most frequent sites of recurrences in head and neck cancer patients and at least 50% are not considered for further treatment because of the advanced stage and poor medical conditions of the patients. Furthermore, most patients are not candidates for curative re-irradiation, chemotherapy is usually palliative and long term survival is uncommon.

Most reports on long term results of salvage surgery for selected patients are based upon the retrospective analysis small series of patients treated during a long period of time in single institutions. Several physicians do not consider a salvage surgery among the treatment alternatives for patients with recurrent head and neck cancer because old reports in the literature or small personal experience based on ancient reconstruction and rehabilitation programs. Fortunately significant improvements in reconstruction methods and combined treatments (intraoperative radiotherapy, brachytherapy or re-irradiation) significantly improved the survival results not only in terms of “mean months of survival” but also quality of life.

The review article presented in this issue of *Applied Cancer Research* summarizes the most recent indications and results of salvage surgery in head and neck cancer patients. The main points presented by Agra et al., are:

a) Non-surgical methods of treatment of recurrent head and neck cancer usually have high cost, high toxicity and associated with poor outcomes. Most patients will die between 6 and 12 months. It is very rare to have a single patient surviving longer than 2 years. The reported survival results are not impressively superior to the natural history of untreated patients series that were previously

reported by our group and others.

b) In spite of surgical complications risk (acceptable in the most recent reports), the most recent series present 5-year overall and disease free survival rates superior to 30%. No other therapeutic method including chemotherapy and photodynamic therapy compares favorably with surgery in selected patients.

c) Salvage surgery has been used for a long time successfully in larynx cancer. However, in oral, oropharyngeal, nasopharyngeal and paranasal sinuses cancer, tumor margins are usually not so clear and such surgeries are a real challenge even for experienced surgeons.

It must to be emphasized that in A C Camargo Hospital experience only about 30% of the patients with loco-regional recurrences are candidates to salvage surgical treatment with curative intent. Some patients can be submitted to radiotherapy with palliative or curative intent, due to recurrence extension (unresectable tumors) or poor clinical status of the patient (untreatable patients). Our previously published results confirm that patients with early loco-regional recurrences had a poor prognosis despite of non-surgical salvage treatments. On the other side, patients with recurrences diagnosed after 12 months are more frequently candidates to curative salvage treatment and had under a lower risk of death.

Several studies are ongoing aiming to identify prognostic factors and biomarkers that could improve our ability in proper patient selection for salvage surgery. Agra et al had published the first evidence that EGFR is a significant predictor of survival in patients with recurrent oral or oropharyngeal carcinomas who underwent salvage surgery. In conclusion, the review article suggest that clinical data and EGFR and other promising tumor markers can became important tools to define therapeutic approach in patients with recurrent head and neck cancer.

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