

Challenges in Head and Neck Therapy for Malignant Neoplasm. The Paradigm Changes in XXI Century

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Introduction

The great majority (70%) of patients with head and neck cancer are diagnosed in stages III and IV. The new therapeutic paradigm is based on clinical stage, histopathological features (90% with squamous cell carcinoma), and new staging methods as PET-CT.

Considered that early stages (I and II) are diagnosed in 30% of cases, the best strategies are supported by surgery and or radiotherapy and for advanced stages, are indicated new schedules of chemotherapy plus irradiation, followed or not by salvage surgery and palliation regimens. These approaches led us for cross roads between choosing radical procedures or conservative managements, considering the Global Survival (GS) and the Free Disease Survival (FDS) as the Best parameter for therapeutic success [1,2].

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The mean age after 60 years old of head and neck cancer incidence, is mandatory in the establishment of a new algorithm for the acceptance of The New Approach for Squamous Cell Carcinoma of the Head and Neck for the new century basing on:

The routinely use of PET-CT (Computed Tomography) before the beginning of the therapy

The PET-CT (Computed Tomography with Positron Emission) is indicated previously the therapy planning, being in 30% of cases diagnosed in stages I/II and 70% for advanced stages III/IV. Based on these facts, usually, the initial approach is conditioned for changes depending of this method, obliging the head and neck oncologist to review the historical results. For advanced stages, the chemotherapy association is followed by salvage surgery and palliation, allowing the increase of global survival of 6 to 12 months, not considering the cost augmentation of the schedule that cannot be supported by the Oncologic Health Program. Then, remains the question that is mandatory the budget revision for the oncologic program, considering the supporting of the population involved by these neoplasias.

Another question for discussion is the degree of concentration of the radiopharmaco in the central part of the neoplasia and for the peripheric cell population of the lesion, determining a new surgical margin preventing the recurrence of the tumor.

The main doubt concerns the necessity of the consideration of molecular limits for the SCC of the Head and Neck, influencing the follow up till 2 years. For these cases, the indication of radiotherapy would be mandatory. When the irradiation, precede the surgical indication, the salvage rescue include the initial limits of the tumor, previously of the radiotherapy [3,4].

Histopathology

The immunohistochemical method suggest genetic polymorphism, supporting the idea that neoplastic tissue are affected and must be included in the field of treatment. Beside this fact, the Micro Tissue Array (MTA) allow the clinician to suggest routinely the association of chemoradiation to limit the systemic spread of the neoplasia for distant organs [4].

For head and neck cancer, 90% of cases are diagnosed through hematoxylin eosin, and only in 10% is necessary the immunohistochemical method, considering that the SCC is diagnosed through its morphologic features.

For the remaining group (glandular tumors, sarcomas and undifferentiated carcinoma), tumoral cell markers are necessary to establish the best approach, where the oncogenes expression (EGF and other products as cyclooxygenase 2) are usually recommended as prognostic factors [5].

Elective Procedures

Surgery and or irradiation are the usual methods for the therapy in head and neck squamous cell carcinoma for stages I, II and eventually III. For stage IV, chemotherapy is usual in association with surgery and and radiotherapy.

In spite of this algorithm, the successful of these procedures are limited, and in 60% of these cases, it is necessary new approaches for the rescue of these patients. These neoplasias usually course with failure results, and for these phases, we introduce new protocols of palliation where the patients are submitted to new drugs that allow a end of life without pain, and generation of quality of life [6-9].

Future of Head and Neck Therapy

Considered that the diagnosis of head and neck cancer in early stages are unusual, for advanced cases, the majority of HNSCC are treated with therapeutic association to treat the elderly patients with comorbidities and the influence in global survival. The main question is concerned "how to handle with these groups of patients where is necessary the establishment of individual treatment considering the history and the real necessity of each one".

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