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Advances in the treatment of locally advanced non-nasopharyngeal squamous cell carcinoma of the head and neck region.

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Source

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Abstract

Over the past decade important advances have been made in the treatment of locally advanced squamous cell carcinoma of the head and neck (SCCHN). Traditionally, chemotherapy has been incorporated in the treatment of SCCHN either before local treatment as induction, concomitantly with radiation, or following local treatment as adjuvant therapy. A number of randomized trials and meta-analyses have demonstrated that induction chemotherapy (usually based on the combination of cisplatin and 5-d continuous infusion of fluorouracil) followed by local treatment or concomitant chemoradiotherapy (CCRT) each prolongs survival and results in organ preservation in a significant number of patients. Survival rates appear to be higher when CCRT with cisplatin is used. Furthermore, accelerated fractionation radiation regimens have shown improved local control rates in randomized trials. Recently, new therapeutic strategies such as induction chemotherapy followed by CCRT or the incorporation of newer agents such as taxanes are under intense investigation and preliminary results are promising. Advances in molecular biology have led to the elucidation of molecular mechanisms that initiate and maintain the malignant phenotype in SCCHN. The identification of molecular targets has revolutionized our approach to cancer therapy and resulted in the introduction of novel targeted therapies. Cyclin-dependent kinases, the tumor suppressor p53 gene, and epidermal growth factor receptor are some of the molecular targets of such therapies in patients with SCCHN.