Ethmoid sinus cancer

Ethmoid sinus cancer is a rare paranasal sinus malignancy. Its characteristics include a low incidence rate, a great variety of histopathological types and multiple treatment modalities. Currently, there remains no definite consensus regarding its optimal management.

In nasal-ethmoidal malignancies, brain involvement is associated with dismal prognosis.

In Brescia, patients undergoing endoscopic resection with transnasal craniectomy and subpial dissection (ERTC-SD) for brain-invading nasal-ethmoidal cancer between 2008 and 2016 were included. Complications were analyzed in all patients, whereas oncological outcomes only in patients with pathological brain invasion. The prognostic impact of previous treatments, brain edema, and histology was assessed. Hospitalization ratio was calculated.

Nineteen patients received ERTC-SD and 11 had pathological-proven brain invasion. Histologies were 6 olfactory neuroblastomas (ONB), 3 neuroendocrine carcinomas, and 2 intestinal-type adenocarcinomas. Mean follow-up was 21.9 months. Three-year overall, local recurrence-free, and distance recurrence-free survivals were 65.5%, 81.8%, and 68.2%, respectively. Overall and distant recurrence-free survivals were significantly better in patients with ONB (P = 0.032 and P = 0.013, respectively). Hospitalization ratio was 4.1%. Complication rate was 10.5%.

In selected nasal-ethmoidal tumors with brain invasion, ERTC-SD can provide good local control, satisfactory survival, and limited morbidity [1].

The aim of a study was to examine the outcome of a population of Asian patients with advanced ethmoid sinus cancers that had been treated with surgery plus combined therapy.

MATERIAL AND METHODS: Between January 1989 and December 2002 inclusive, 19 newly diagnosed patients with ethmoid sinus cancers who had undergone surgical intervention were enrolled, T4 being the principal carcinoma stage (68.4%). All participating cases proved to be node-negative and no evidence of any distant metastasis was detected at the time of diagnosis. The major treatment modality was surgery plus postoperative radiotherapy. All but 2 of the 13 patients with T4 cancer underwent craniofacial resection with pericranial flap reconstruction.

RESULTS: The estimated overall and disease-free survival rates 3 years post-treatment were 49.4% and 26.3%, respectively. Local tumor recurrence was more common than regional recurrence and/or distant metastasis. A total of 5/15 T3-T4 patients (33%) developed a neck metastasis, 3 of whom also suffered a distant metastasis. There was no postoperative mortality for the cases treated with craniofacial resection.

CONCLUSIONS: Ethmoid sinus cancer typically demonstrates a propensity for late diagnosis and poor prognosis. This study confirms that craniofacial resection plus combined associated therapy is the optimal approach for the effective management of extensive ethmoid sinus tumors and is associated with an acceptable morbidity rate. More aggressive disease management featuring prophylactic concurrent chemoradiotherapy including neck or elective neck dissection plus chemotherapy should be considered for T3-T4 patients as opposed to T1-T2 patients [2].

1)

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2)

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