

Faculty of Medicine

Department: Otolaryngology & Head and Neck Surgery

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Title: Detection of local failures after management of nasopharyngeal carcinoma: a prospective, controlled trial

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Published In: The J. of Laryngology & Otology (2008) 122.

Impact Factor:0.754

Abstract:

Objectives: To conduct a prospective study (1) to evaluate and compare the efficacies of nasopharyngeal endoscopy and computed tomography in the diagnosis of local failure of external beam radiotherapy for nasopharyngeal carcinoma, and (2) to assess whether multiple endoscopic nasopharyngeal biopsies are superior to a single, targeted biopsy, for the same purpose.

Methods: Forty-six patients who had been treated with external beam radiotherapy for primary nasopharyngeal carcinoma were enrolled in the study. For every patient recruited, computed tomography, rigid nasopharyngeal endoscopy and nasopharyngeal biopsies were performed 12 weeks after radiotherapy.

Results: Twelve weeks after treatment, six patients (13 per cent) had evident disease on histological examination of biopsies. Nasopharyngeal endoscopy showed a sensitivity, specificity, positive predictive value and negative predictive value of 66.6, 95, 66.6 and 95 per cent, respectively. There was statistically significant agreement between the endoscopic findings and the histological findings (Kappa reliability coefficient $\frac{1}{4}$ 0.617, $p < 0.01$). Computed tomography showed a sensitivity, specificity, positive predictive value and negative predictive value of 50, 45, 12 and 85.7 per cent, respectively. There was no statistically significant agreement between the computed tomography findings and the histological findings (Kappa reliability coefficient $\frac{1}{4}$ 0.021, $p > 0.05$). A targeted, single biopsy performed under endoscopic control demonstrated excellent sensitivity, specificity, positive predictive value and negative predictive value, being 83.3, 100, 100 and 97.5 per cent, respectively. The Kappa test showed a very statistically significant agreement between the histological findings for the single and the multiple endoscopic biopsies (Kappa reliability coefficient $\frac{1}{4}$ 0.897, $p < 0.001$).

Conclusions: Rigid nasopharyngeal endoscopy should be considered the primary follow-up tool after radiotherapy treatment of nasopharyngeal carcinoma, with computed tomography being reserved for patients with histological or symptomatic indications. Routine postnasal biopsies are not necessary, given the excellent specificity and negative predictive value of rigid nasopharyngeal endoscopy. Single, targeted endoscopic biopsy provides an excellent alternative to the usual multiple biopsies. In addition, it reduces cost, time, morbidity and patient discomfort.

Key words:

Nasopharyngeal Neoplasms; Carcinoma; Radiotherapy; Biopsy

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Name: Mohamed A. Khalifa

Title: Endoscopic assisted antral window approach for type III nasopharyngeal angiofibroma with infratemporal fossa extension

Authors: Mohamed A. Khalifa and Sameh M. Ragab

Published In: International J. of Pediatric Otorhinolaryngology, :(2008)

Impact Factor:0.546

Abstract:

Objectives: **To** assess the efficacy and safety of endoscope assisted antral window approach in advanced nasopharyngeal angiofibroma with infratemporal fossa extension. Materials and methods: Sixteen cases diagnosed as juvenile nasopharyngeal angiofibroma type III with infratemporal fossa extension were surgically managed using endoscopic assisted antral window approach (group A) and compared with another group of similar number that were managed using endoscopic assisted midfacial degloving (group B). Inclusion criteria were type III JNA with infratemporal fossa extension and a minimum follow-up of 2 years. Operative time, blood loss, adverse events and recurrences were recorded in all cases.

Results: The amount of blood lost in group A was significantly less than group B. The operative time of group A was significantly less than group B. No major complications were seen in both groups. **Twenty-eight** patients showed complete tumor clearance. Four recurrences were **seen**: two in group A and two in group B.

Conclusion: Endoscopic assisted antral window approach provides a safe, reliable, effective and minimally invasive technique in management of type III JNA with infratemporal fossa extension. Preoperative embolization is a safe measure in the experienced hands that helps to reduce intraoperative blood loss and improves the quality of the surgical field.