Endoscopic Endonasal Transsphenoidal Approach to Sellar Lesions: a Referral Center Experience

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ABSTRACT

Objective: This study aims to analyze the experience of a multi-disciplinary service in the use of endoscopic endonasal transsphenoidal approaches performed by neurosurgeons and otorhinolaryngologists from 2006 to 2009. Methods and Materials: Retrospective study of 61 endoscopic endonasal transsphenoidal approaches to sellar lesions. Results: Forty-one percent of patients were male, with a mean age of 41 years. The most frequent post-operative complications were bleeding (50%), infections (41%), nasal leakage (23%), and epistaxis (11%). The mean surgical time was 1.9 ± 0.5h and the mean hospitalization time was 7.6 ± 6.7 days. Conclusions: The endoscopic approach allows more complete resection of the lesion and lower rates of recurrence of disease. The endoscopic technique minimizes injury to nasal structures and preserves the nasal function, reducing the postoperative discomfort and improving quality of life.

INTRODUCTION

The endoscopic approach to sella is currently an important treatment option for sellar and parasellar tumors. The performance together of ENT and neurosurgeons has permitted the traditional subtotal access with microscope to be replaced by endoscopic access, with less morbidity in relation to the traditional methods.

This study aims to describe the experience of a multi-disciplinary service in endoscopic approach to sellar lesions analyzing complications, recurrence of disease, time of hospitalization and intraoperative difficulties.

METHODS AND MATERIALS

Retrospective study of 61 endoscopic endonasal transsphenoidal approaches performed by neurosurgeons and otolaryngology staffs from January 2008 to December 2009. The surgery was indicated for patients followed by endocrinologists and neuro-radiologists, and all patients were submitted to MRI, computed tomography, hormonal analysis and ophthalmologic evaluation in the preoperative period. The follow-up was done by endocrinologists, neuroradiologists and otorhinolaryngologists, with hormonal analysis, periodic MRI and nasoendoscopy.

RESULTS

Fifty-one percent of patients were male, with a mean age of 41 years. The majority of cases were pituitary macroadenoma (49%) non-secreting. The other diagnosis are described in Table 1.

The postoperative complications were Cerebrospinal fluid leak with spontaneous resolution (2 cases), epistaxis with anteroposterior nasal packing (3 cases) and synechias (7 cases). Eighteen patients had recurrence of disease (29%). The mean time for radiological diagnosis of recurrence was 5.3 ± 2.9 months. Five patients were re-submitted to surgery and 4 had radiotherapy. The others had clinical follow-up with periodic RNM. The mean follow-up was 15 ± 8 months.

Table 1: Etiological diagnosis of patients submitted to endoscopic endonasal approach

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>N (%)</th>
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<tr>
<td>Non-secreting pituitary adenoma</td>
<td>30 (49)</td>
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<tr>
<td>Secreting pituitary adenoma</td>
<td>24 (40)</td>
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<tr>
<td>Craniopharyngioma</td>
<td>6 (10)</td>
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<tr>
<td>Rathke’s Cleft cyst</td>
<td>1 (1)</td>
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<td>Total</td>
<td>61 (100)</td>
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CONCLUSIONS

The endoscopic endonasal transsphenoidal approach has been the procedure of choice to allow a great access to sphenoidal sinus with low morbidity. Besides that, the good visualization of sphenoid allows more complete resection of the lesion and lower rates of recurrence of disease.

REFERENCES