

Introduction

Pituitary adenoma, craniopharyngioma and meningioma are common sellar lesions, accounting for more than 90% of sellar tumors. The aim of this study is to assess the reliability and safety of the lateral supraorbital (LSO) approach to remove sellar tumors.

Methods

Between June 2012 and December 2014, 56 patients with neoplastic lesions underwent surgery via the LSO approach. The clinical presentations, neuroradiological findings, microsurgical techniques, and outcome at discharge of these patients were analyzed. In addition, the clinical series in the available literature written in English were also extensively reviewed. 26 (48%) patients were treated for pituitary adenoma; 15 (26%) patients for tuberculom sellae meningioma; and 15 (26%) patients for craniopharyngioma.

Results

Seemingly complete tumor removal was achieved in 51 patients (91%); surgical mortality was 3 patient (5.4%). Postoperatively, no patient had developed cerebrospinal fluid leakage or new visual deficits. One (4%) patient had intracranial infection, and one (1.7%) had a postoperative hematoma. The median Karnofsky score at discharge was 87.4 (range, 0 to 100). The Glasgow outcome scale at discharge was 4.6 (range, 1 to 5). Of all, 51 (91%) patients achieved favorable outcomes.

Conclusions

Sellar tumors can be removed via the LSO approach with relatively low morbidity and mortality. Surgical results with this fast and simple approach are similar to those obtained with more extensive, complex, and time-consuming approaches.

Learning Objectives

Glasgow outcome scale at discharge and patients achieved favorable outcomes

