

Introduction

Tongue edema following posterior cranial fossa surgery is occasionally encountered and may result in unexpected poor outcomes. However, to date, no incidence has been reported. The goal of this work is to evaluate the rate of tongue edema following posterior cranial fossa surgery, evaluate clinical outcomes and management strategies.

Methods

This represent a single-center retrospective study of patients who underwent posterior fossa craniotomies between January 2000 and January 2017. Patients who underwent posterior fossa craniotomies were identified using CPT codes and dependent and independent variables were collected via chart review.

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Results

Out of 1,567 consecutive posterior fossa craniotomies that were queried, postoperative tongue edema was diagnosed in 32 patients (2.04%). Mean age was 35. 16 were female and 16 were male. Craniotomies that resulted in postoperative tongue edema were performed for tumor resection in 17 cases, for Chiari malformation in 12 cases, stroke in 2 cases and aneurysm clipping in 1 patient. Most surgeries with encountered edema were performed in the prone position (87.5%) under general anesthesia. Average duration of surgery was 459 minutes for these cases.

Average patient BMI was 27.37.

Average follow-up duration was 49 months. The majority of cases were noted on postop D0 and D1. There were no directly related mortalities. Mean days of hospitalization post procedure in cases complicated by postoperative tongue edema was 14 days. 11 patients had to remain intubated postop and 4 patients were reintubated post extubation for development of tongue edema. 11 patients ultimately required tracheostomy placement; of these patients, 4 had decannulation of their tracheostomy during follow-up and 6 are still tracheostomy-dependent.

Conclusions

Tongue edema occurs in about 2% of posterior fossa craniotomies and can result in significant postoperative morbidity including prolonged hospitalizations, prolonged intubation times, re-intubation and tracheostomy placement.

References

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Learning Objectives

- 1) Describe the incidence of tongue edema following posterior fossa craniotomies
- 2) Describe the outcomes of patients who suffer