ABSTRACT

Introduction and Objective: The Eustachian tube is one of the key structures responsible for the functional balance of the middle ear. Some clinical condition can be associated with tubal malfunction causing extremely unpleasant symptoms such as aural fullness and cacophony. These symptoms could be triggered by acute massive loss of weight, as often occur in patients after bariatric surgery. This study aims to evaluate the frequency and intensity of tube dysfunction related to obese patients after bariatric surgery.

Method: Nineteen patients, with a formal indication of bariatric surgery were submitted to hearing evaluation (otoscopy, tonal and vocal audiology and impedimetry) and answered a questionnaire on hearing before, and 3 and 6 months after surgery. Patients with ear disease or a history of ear surgery were excluded.

Results: We found that 5 (26.3%) patients showed symptoms related to dysfunction of the Eustachian tube at the first postoperative evaluation. After 6 months of follow-up 9 (47.3%) patients presented symptoms of tubal dysfunction.

Conclusion: This study suggests that bariatric surgery can cause symptoms of Eustachian tube dysfunction, probably due to rapid weight loss and the consequent loss of peritubal fat.

INTRODUCTION

The Eustachian tube is one of the key structures responsible for the functional balance of the middle ear. Some clinical condition can be associated with tubal malfunction causing extremely unpleasant symptoms such as aural fullness and cacophony. These symptoms could be triggered by an acute massive loss of weight, as often occur in patients after bariatric surgery.

OBJECTIVE

This study aimed to evaluate the occurrence of signals and symptoms related to Eustachian tube dysfunction in obese patients after the surgical procedure of stomach reduction (bariatric surgery).

METHOD

This is a prospective longitudinal cohort study. The project was approved by The Ethics in Research Committee of the Institution. This study was conducted with adult patients (≥ 18 years) with BMI (body mass index) < 40 or ≥ 35 with comorbidities related to their weight. All patients underwent bariatric surgery at the same hospital. All patients were submitted to a hearing evaluation (otoscopy, tonal and vocal audiology and impedimetry) and a questionnaire on hearing symptoms before, 3 to 4 (postoperative period 1), and 5 to 6 months (postoperative period 2) after surgery. Patients presenting any tube dysfunction symptoms underwent to a new hearing evaluation (otoscopy, tonal and vocal audiology and impedimetry). Patients with disease or a history of ear surgery were excluded.

RESULTS

Twenty one patients were selected to the study, but only 19 were included. There were loss of follow up in those 2 patients. Among the 19 included patients, 13 (68.4%) were female and 6 (31.6%) male. The age’s average (=SD) was 39.21 years ± 11.30 years. The prevalence of tubal dysfunction in the postoperative period was 0% (zero). We observed that 5 (26.3%) patients presented tube dysfunction symptoms at the first postoperative evaluation (3-4 months after surgery). After 5 to 6 months of follow up, 9 (47.3%) presented tube dysfunction symptoms. The average onset of these symptoms were 2-3 weeks. (1 to 23 weeks). Our findings (symptoms) are presented in figure 1. Regarding the hearing evaluation, no changes were observed in the otoscopy, audometry and impedimetry despite the hearing complaints.

CONCLUSION

This study suggests that bariatric surgery can cause symptoms of Eustachian tube dysfunction, probably due to rapid weight loss and the consequent loss of peritubal fat.

REFERENCES