Self-Decapitation Attempt Attributed to Tinnitus and Corticosteroid Use

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ABSTRACT

Objectives
1. Review the relationship between severe tinnitus and suicidal ideation; including documented cases in the literature.
2. Discuss the increased risk of suicidal ideation and attempts in patients with a history of psychiatric illness who receive high-dose corticosteroid treatment.
3. Describe the novel surgical repair of laryngeal defect and vocal cord injury.

Methods
Case report describing a patient with multiple psychiatric comorbidities who received high-dose corticosteroids to treat tinnitus with subsequent suicide attempt.

Results
49-year-old male with a history of anxiety, depression, and schizophrenia was suffering from severe, bilateral tinnitus. After completing a high-dose steroid treatment for tinnitus given by another clinician, he attempted to commit suicide by acetylamophen ingestion and self-decapitation with a hand saw. Subsequent treatment included emergent neck exploration, tracheostomy, re-suspension of his vocal cords/Broyle’s ligaments, and closure of the laryngotracheal defect with an omohyoid myofascial flap. Patient recovered with good voice quality and no significant sequelae. Psychiatry further managed his mood disorder.

Conclusion
Tinnitus is a very common and often easily dismissed diagnosis, but is considered a nuisance by most who suffer from symptoms. In certain populations the morbidity of tinnitus is severe, particularly those with coincident psychiatric illness. Clinicians must be cognizant of the impact that tinnitus can have on their patient’s life, and must select corticosteroid treatment appropriately, especially for those with a history of mood disorders.

In the setting of severe cartilage loss, laryngotracheal defect repair with a local myofascial flap with vocal cord suspension can yield satisfactory results.

INTRODUCTION

• Tinnitus is the perception of sound without an external source.1
• It is a common phenomenon with the incidence increasing with age and being found more often in males.
• Severe tinnitus occurs in 3 to 5% of affected patients and it can greatly affect quality of life.2
• Complications of tinnitus include hearing loss, hyperacusis, insomnia, anxiety, and depression.2
• Suicide attempt is a much rarer complication, however, in the past 10 years there have been a few reported cases that implicate tinnitus as the cause of suicide.2

MATERIALS AND METHODS

• History of Present Illness: 49-year-old male was transferred from an outside hospital already intubated. In a suicide attempt the previous night, he took 10 capsules of acetylamophen and lacerated his throat with a handsaw. He lost consciousness and was found approximately 12 hours later by his wife.
  • Over the preceding three weeks the patient had also started experiencing severe tinnitus.
  • He was prescribed a Medrol dose pack followed by a high-dose prednisone taper under the direction of an outside otolaryngologist.
• Past Medical History: Anxiety, Depression, Schizophrenia
• Physical Exam:
  • General: Patient appears distressed. Intubated prior to arrival with C-collar in place.
  • Neck: 12 cm transverse wound of the anterior neck, with exposure of large vessels and the crico-thyroid junction. Endotracheal tube was visible through the large laceration in the trachea (Figure 1 and 2).

RESULTS

• Surgical Repair: Emergent neck exploration, tracheostomy, closure of the laryngotracheal defect with an omohyoid myofascial flap, and wound closure of his neck (Figure 3 and 4).
  • No complications occurred during the procedure, and he was then transferred to the ICU.
  • Post-Operative Day 4: Patient was very agitated overnight and complains of bilateral tinnitus. He states that “it is driving him crazy”.
  • Post-Operative Day 6: Downsize to a Shiley 4 cuffless tracheostomy tube, and began capping trials that evening.
  • Post-Operative Day 8: Patient decannulated in the morning, and was phonating well. He also passed a swallow study later that day.
  • Post-Operative Day 9: Patient transferred to inpatient psychiatry unit.
  • Post-Operative day 14: Discharged home with his wife.
  • No further follow-up information is available.

DISCUSSION

• Up to 25% of patients with chronic tinnitus consider it to be a significant problem.3
• There are many otologic conditions that cause tinnitus in which corticosteroids are used as part of standard treatment.
• However, people treated with glucocorticoids have nearly a sevenfold higher risk of committing or attempting suicide compared with people unexposed to glucocorticoids.4
• Furthermore, the incidence is even higher in patients with a prior history of psychiatric illness.5
• Additionally, the endorsement of an omohyoid myofascial flap is supported by its successful application in reconstructing a deformity that lacks sufficient local tissue to be closed.
• This technique is therefore advantageous because it provides a readily applicable and dependable method of closure while still achieving a patent airway and excellent voice quality.5

CONCLUSION

• In certain populations the morbidity of tinnitus is severe, especially in those with coincident psychiatric illness.
• Clinicians must be cognizant of the impact that tinnitus can have on their patients life and must select corticosteroid treatment appropriately.
• A local myofascial flap can be a viable option to repair a laryngotracheal defect and provide a satisfactory vocal and functional outcome.

REFERENCES


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