Foreign accent syndrome post tonsillectomy: A case report

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Abstract
Foreign Accent Syndrome (FAS) is a rare clinical entity in which affected patients experience a new pattern of speech resembling an unusual accent. Reported cases are scarce in published literature and are usually the result of a neurological insult. FAS as a complication from a general anesthetic or surgery has not been reported to date. We present the case of a healthy 27-year-old Australian woman who developed FAS following a tonsillectomy. Post operatively, speech patterns resembled an Irish accent. We discuss the potential mechanisms of the unusual complication as well as review the available literature surrounding FAS.

KEYWORDS
foreign accent syndrome, Irish accent, tonsillectomy

1 | INTRODUCTION

Tonsillectomy is one of the most common surgeries performed worldwide with over half a million cases performed each year in the United States alone.1 The vast majority of operations are uneventful, however the post-operative recovery period may be complicated by secondary hemorrhage and pain.2 Changes in voice can occur following pathology or operative intervention in oropharyngeal anatomy and studies have proposed that altered oropharyngeal dimensions following tonsillectomy may contribute to voice changes post-operatively.3 In spite of potential mechanisms for voice change postoperatively patients who have had their tonsils removed generally report transient or minimal changes to voice.4 Foreign Accent Syndrome (FAS) is a rare clinical entity first reported in 1907 in which patients experience a complete change in voice resembling a new accent.5 The accent should be judged by the patient, by acquaintances, and by the investigator, to sound foreign and to be unlike the patient’s prior native dialect.

Of the few cases reported in literature of foreign accent syndrome, most are associated with a neurological insult or developmental disorder.6 To our knowledge, this is the first reported case of FAS as a postoperative complication and the first time a FAS sufferer has reported their accent to resemble an Irish English speaker.

2 | CASE PRESENTATION

We present the case of a previously healthy 27-year-old Australian woman who underwent tonsillectomy in her local hospital under general anesthesia for recurrent tonsillitis. Tonsillectomy was carried out using a Bizact device. The operation and immediate postoperative recovery were uneventful. No complications with general anesthesia were observed. On the tenth postoperative day the patient noted an acute change to her voice. Changes in pitch, tone, and tempo of the patient’s voice were noted by family, friends, and media outlets to resemble an Irish accent. This was an acute change from her native, preoperative Australian accent. The remainder of the recovery period was uneventful, however, the unusual new accent remained. Radiological investigations including Magnetic...
Resonance Imaging (MRI) brain showed no evidence of ischemia (Figures 1 and 2). At her 6 month post operative review, the patient continues to suffer with FAS, with her accent sharing similarities with a northern Irish accent (Video S1). Symptoms are notably worse with fatigue and stress, and have shown minimal improvement despite extensive speech and language therapy, as well as a subsequent general anesthetic.

3 │ DISCUSSION

FAS in a unique clinical entity with distinct differences from other disorders of speech. While more common speech disorders can display dysphasia or dysarthria, FAS can result in an altered pattern of intonation and articulation resembling an accent which is not obviously pathological. The majority of the few available reported cases in literature are associated with neurovascular injury through stroke or traumatic brain injury. Visualized lesions are heterogeneous, although suspected mechanisms in these cases have been proposed with demonstrable abnormalities in areas of the posterior frontal lobe such as the laryngeal motor cortex. Cases of FAS without discrete lesions on neuroimaging have been described in literature and some published literature questions whether the key features of FAS depend on a listener to perceive a more typical speech disorder as in keeping with a foreign accent.

FAS has never been reported in the postoperative period. Major neurological sequelae and complications of general anesthesia are well reported in literature although mild subclinical neurological illness, either chemical or hypoxemia mediated, is less well understood. Specific to tonsillectomy vocal changes such as a reduction in hypernasality have been documented and may contribute to an altered voice post operatively.

The clinical presentation of an apparent Irish variant of foreign accent syndrome has not previously been described in literature. While the reasons behind this unusual presentation may never be fully apparent, the available evidence suggests a multifactorial origin from a potential neurological change following general anesthesia, combined or exacerbated by a postoperative structural change to airflow and resonance in the oropharynx. The result is a new Irish accent in an Australian woman who has never set foot in “Eire.”
AUTHOR CONTRIBUTIONS
MC wrote the manuscript and gathered patient information and consent. JOS edited the manuscript and provided anesthesia input. NVDB edited the manuscript conducted the literature review and referencing. JL was institutional lead and made final edits.

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CONFLICTS OF INTEREST
No conflicts of Interest.

DATA AVAILABILITY STATEMENT
No data used.

CONSENT
Written informed consent was obtained from the patient to publish this report in accordance with the journal’s patient consent policy.

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SUPPORTING INFORMATION
Additional supporting information may be found in the online version of the article at the publisher’s website.

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