

## Introduction

- Nontuberculous mycobacteria (NTM) are environmental organisms that most commonly cause cervicofacial lymphadenitis and pulmonary infections in children
- Only 97 cases of NTM mastoiditis have been reported in the literature since 1972<sup>1</sup>
- Given the rarity of NTM mastoiditis and then tendency of NTM to exhibit multidrug resistance, diagnosis and management of this disease is challenging
- Here we describe a rare case of *Mycobacterium abscessus* mastoiditis in a pediatric patient, including history, clinical, and radiologic findings

## Case Presentation

- A 3-year-old immunocompetent female with 2.5 years of recurrent acute otitis media managed with bilateral myringotomy and tympanostomy tube insertion presented with intermittent left mucoid otorrhea refractory to two months of topical ciprodex drops.
- Culture revealed *Mycobacterium abscessus*. Temporal bone CT demonstrated near complete opacification of the external auditory canal, middle ear cavity, and mastoid air cells.
- Patient underwent left cortical mastoidectomy with left tympanostomy tube removal and replacement, which demonstrated severe mucosal disease and osteitis without bony destruction of the mastoid.
- A peripherally inserted central catheter was inserted to allow for treatment with triple antibiotic therapy. Infection remained localized to the mastoid and inner ear.
- Repeat CT 1.5 months after surgery showed improved aeration in the middle ear space. No further complications have been noted.

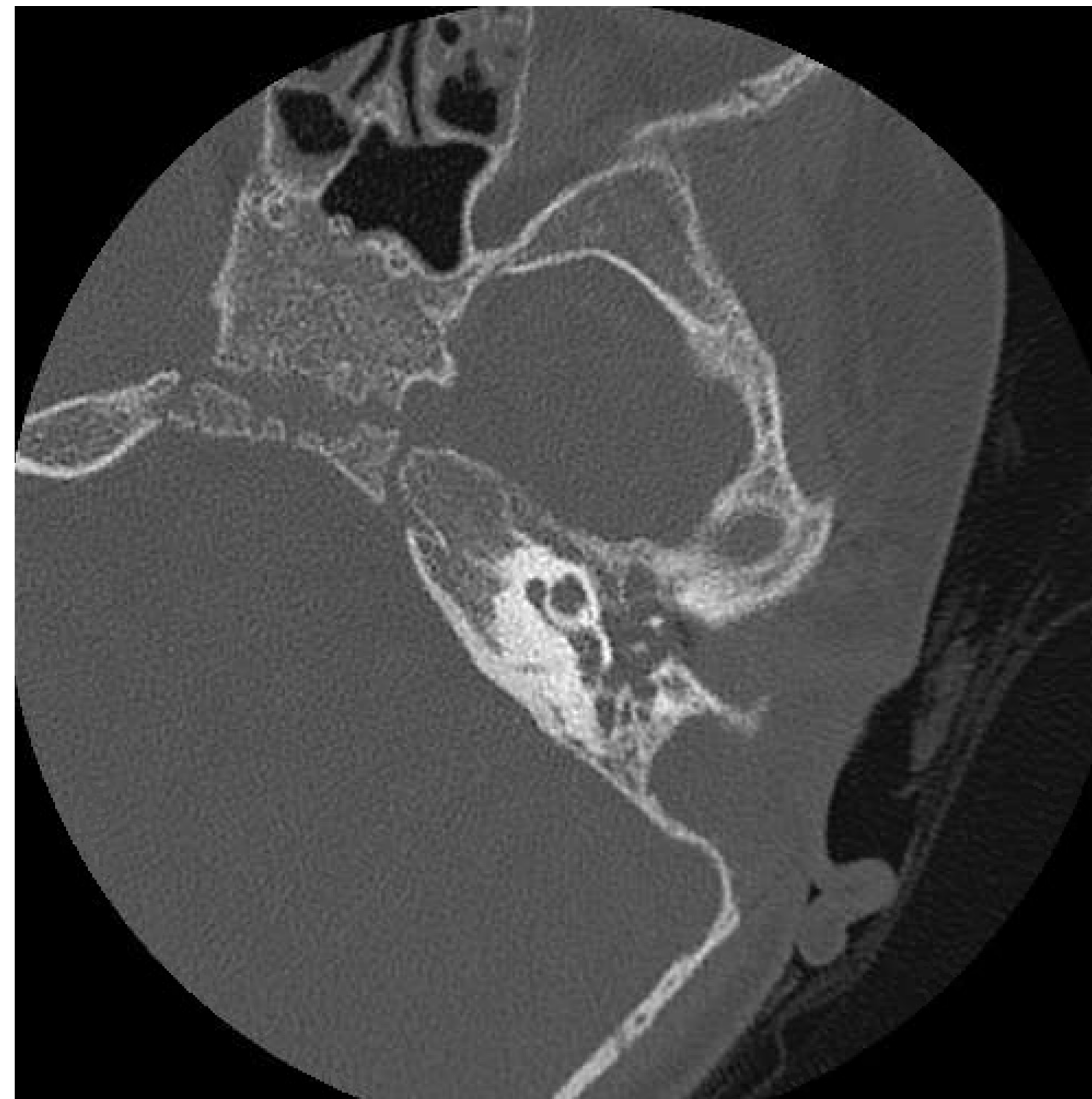
## Discussion

- *Mycobacterium abscessus* is a rare cause of mastoiditis that has been infrequently described
- The dearth of literature renders timely recognition and standardized approach to treatment difficult
- Clinical suspicion for mycobacterial mastoiditis should be high in patients with ciprofloxacin-resistant, persistent otorrhea
- Early bacterial culture with staining for acid-fast bacilli should be considered in such patients
- Treatment consists of multidrug systemic therapy and surgical debridement

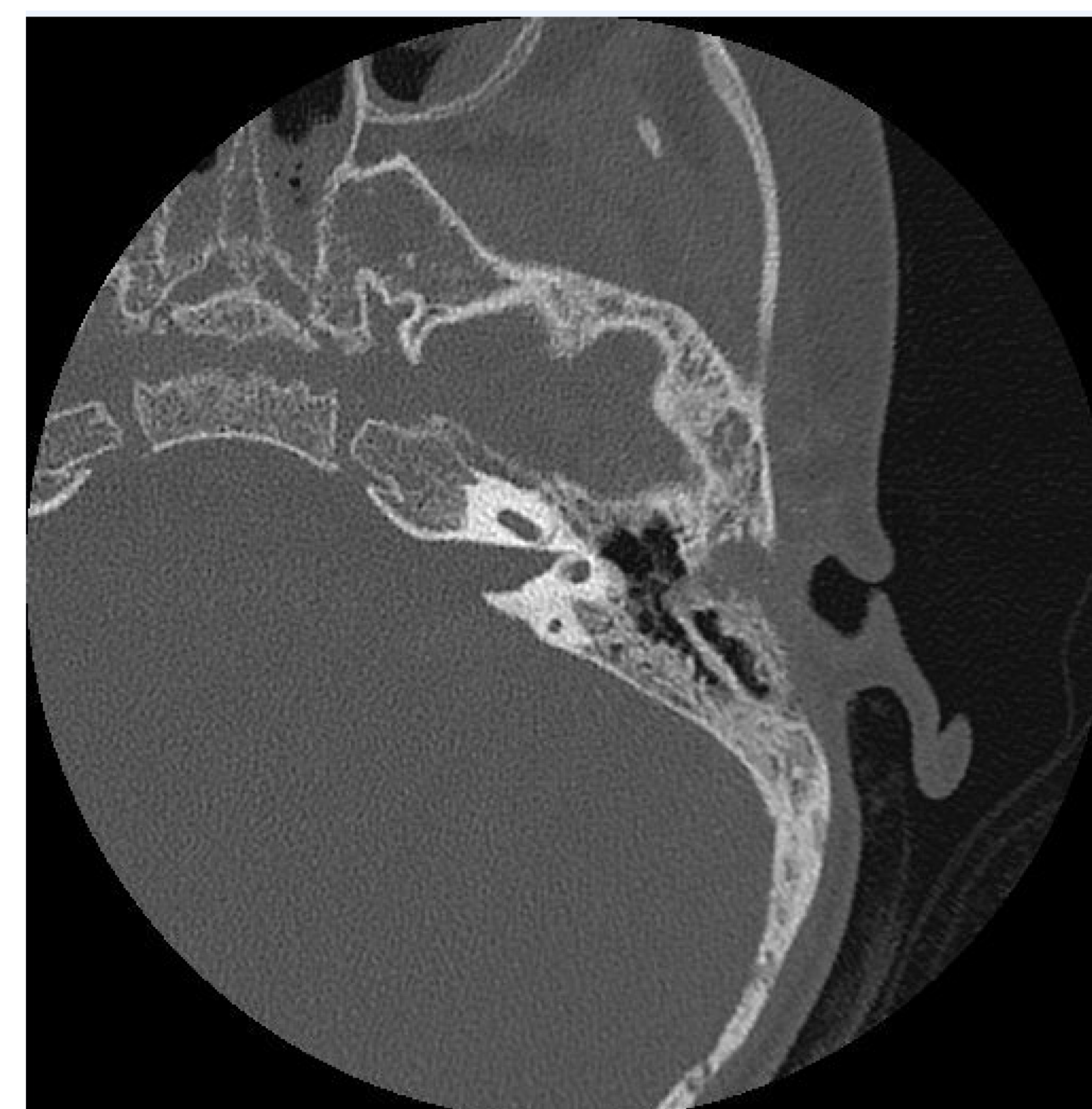
A



B



C



**Figure 1.** Temporal bone CT taken on 11/2022 (A), 12/2022 (B), and 2/2023 (C)

## References

1. Sédillot-Daniel È, Voizard B, Vallières É, Woods O, Quintal MC. Chronic suppurative otomastoiditis due to nontuberculous mycobacteria: A case series. *Int J Pediatr Otorhinolaryngol.* 2020;138:110375. doi:10.1016/j.ijporl.2020.110375