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Title: A case of Chronic Otitis Media Caused by *Mycobacterium Abscessus*

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Keywords: non-tuberculous mycobacteria, *Mycobacterium abscessus*, chronic otitis media, multi-antibiotic chemotherapy, surgery

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A case of Chronic Otitis Media Caused by Mycobacterium Abscessus

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Until recently the treatment of *M. abscessus* was considered difficult. Rapidly growing mycobacteria are routinely resistant to standard anti-tuberculous drugs, and *M. abscessus* is particularly drug resistant. Spontaneous recovery is accordingly rare in these infections. Therapy consists of surgical debridement, removal of all foreign bodies, and long-term multi-antibiotic chemotherapy [4]. In the literature, surgical excision of the infected tissue is recommended for *M. abscessus* COM and long term antimycobacterial chemotherapy with clarithromycin and amikacin is also recommended for *M. abscessus*. Clarithromycin should be given at high doses (600-800 mg/day) and the chief disadvantage of multi-antibiotic chemotherapy is gastrointestinal symptoms due to high-dose clarithromycin. When performing surgical debridement, as much infected tissue must be removed as possible to avoid multiple surgical interventions, because one study showed that almost 50% of all cases needed multiple surgical debridements before the infection resolved [5,7,9,10].

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*M. abscessus* otitis media is usually found in well children presenting with painless chronic otorrhea. Although it appears very uncommon in adult otitis media, *M. abscessus* should be considered as a possible cause of a chronically draining ear in an adult. It is important to obtain mycobacterial cultures to diagnose *M. abscessus* infection.

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## **FIGURE CAPTIONS**

Figure 1. The tympanic membrane showed a small perforation with copious, serous otorrhea.

Figure 2. Computed tomography on April 17, 2008 showed a soft tissue shadow occupying the middle ear and mastoid cavity.

Figure 3. Audiometry on March 3, 2008 revealed right conductive hearing loss.

Figure 4. Audiometry on July 11, 2008 showed improvement of the conductive hearing loss.

Figure 5. Computed tomography on August 29, 2008 demonstrated good aeration in the tympanic cavity.

TABLE. M.abscessus patient Information

| Authors              | Age(yr)/Sex | Antibiotic Treatment                             | Surgical Treatment                    | surgical Revision     | outcome ( hearing level )                                     |
|----------------------|-------------|--|---------------------------------------|-----------------------|---|
| Nylen et al,1994     | 6/M         | Clarithromycin                                   | Radical mastoidectomy                 | Mastoidectomy         | residual 40-dB conductive hearing loss                        |
| Franklin et al 1994  | 1/F         | Erythromycin                                     | Tympanomastoidectomy                  | None                  | residual mild conductive hearing loss                         |
| Franklin et al 1994  | 2/M         | Erythromycin                                     | xamination,<br>debridement,<br>biopsy | Tympanoplasty         | not noted   |
| Franklin et al 1994  | 3/M         | Erythromycin                                     | Tympanomastoidectomy                  | None                  | normal hearing  |
| Franklin et al 1994  | 6/M         | Erythromycin                                     | Tympanomastoidectomy                  | None                  | Residual mild mixed conductive and sensorineural hearing loss |
| Franklin et al 1994  | 4/F         | Erythromycin                                     | Tympanomastoidectomy                  | Tympanomastoidectomy  | residual 40-dB conductive hearing loss                        |
| Franklin et al 1994  | 1/M         | Clarithromycin                                   | None                                  | None                  | not noted   |
| Van Aerem et al 1998 | 2/M         | Clarithromycin/<br>ciprofloxacin/<br>ethionamide | Mastoidectomy                         | Mastoidectomy (twice) | residual 34-dB conductive hearing loss                        |
| Ferguson et al 1996  | 5/M         | Clarithromycin                                   | None                                  | None                  | not noted   |
| Linmans et al 2008   | 4/M         | Clarithromycin                                   | Cmbined-approach<br>tympanoplasty     | Second look           | normal hearing  |
| Our case             | 61/F        | Clarithromycin /<br>panipenem/<br>betamipron     | Tympanomastoidectomy                  | None                  | residual 30-dB conductive hearing loss                        |

Figure1

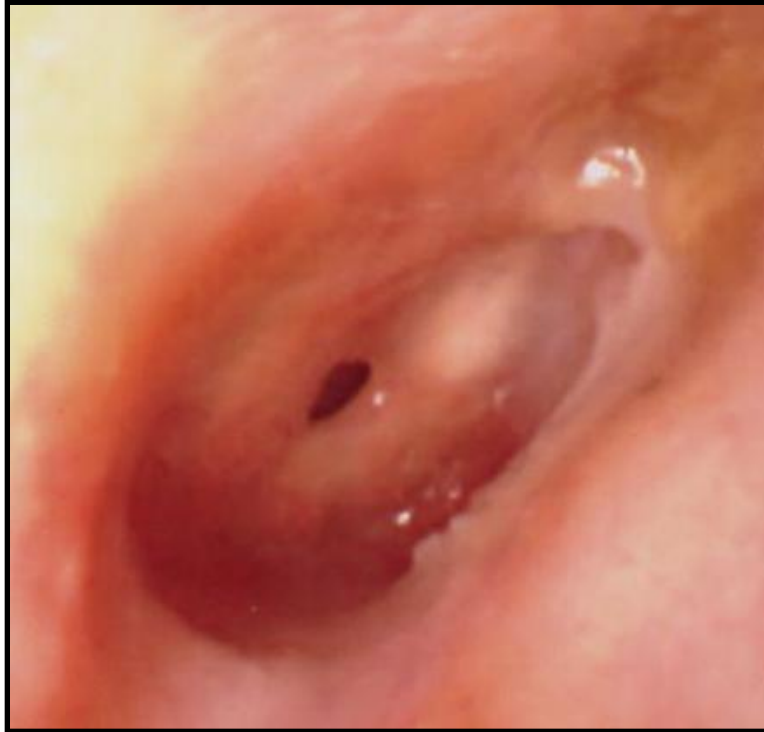


Fig.1

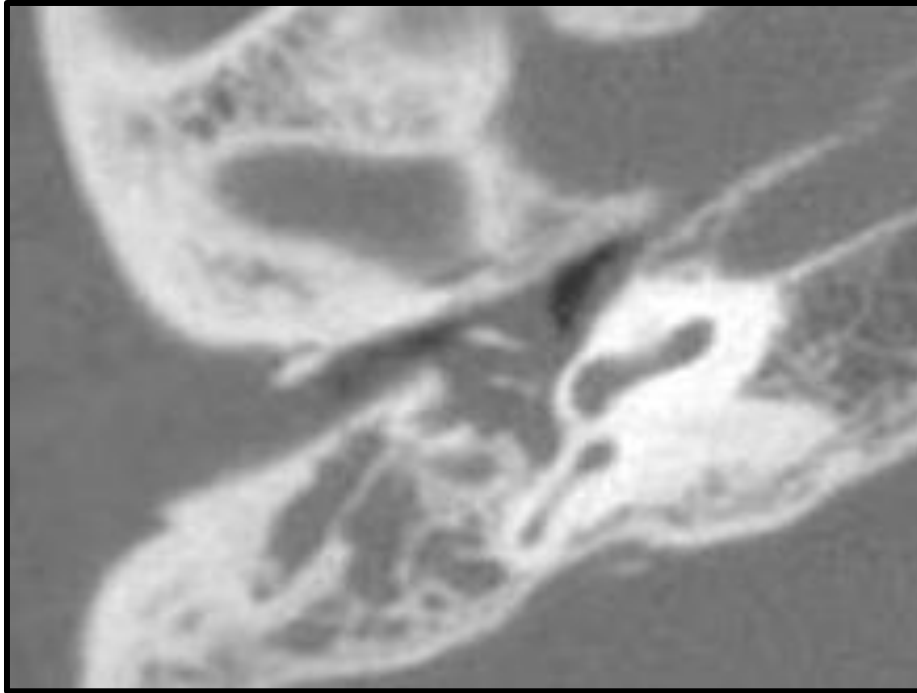


Fig2 CT scan showed soft tissue shadow occupied in the middle ear and the mastoid cavity

Figure3 Rev

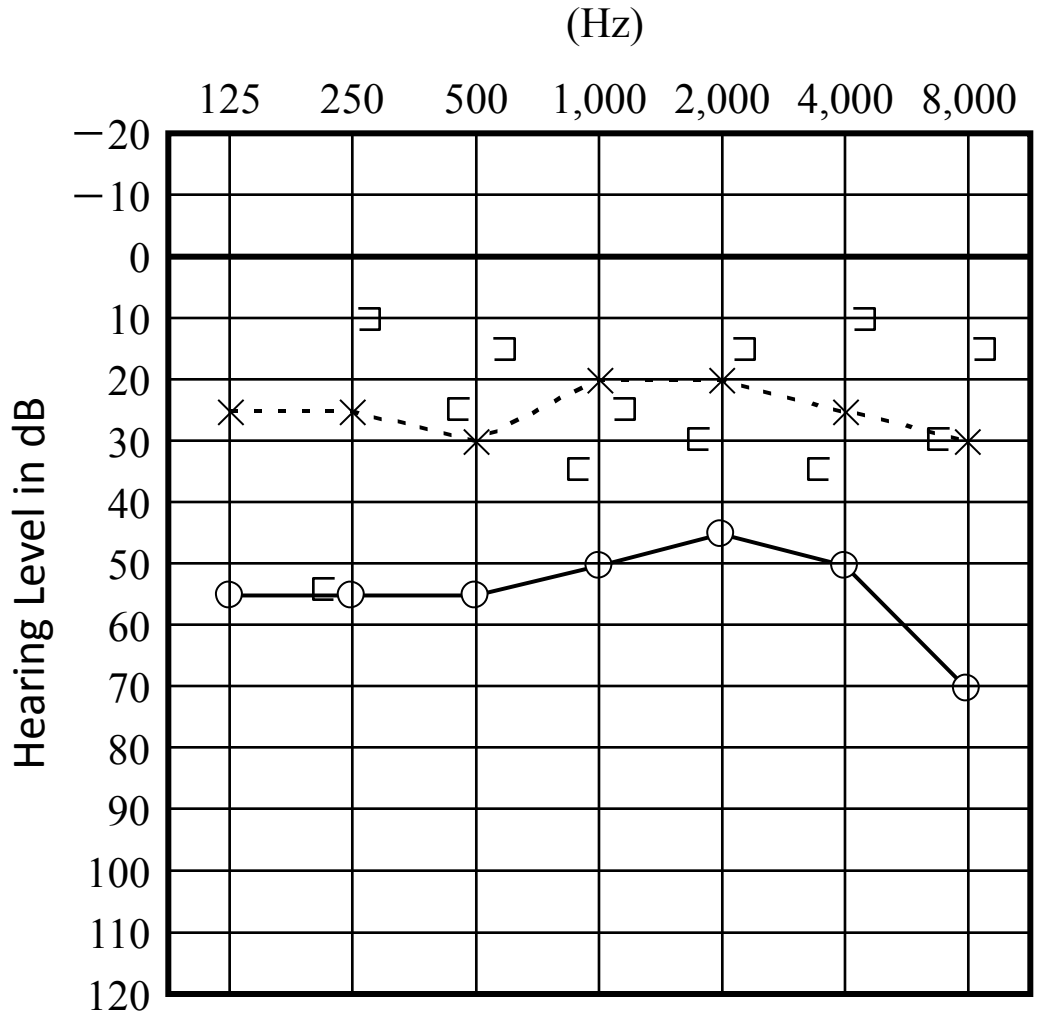


Fig3 audiogram revealed right conductive hearing loss

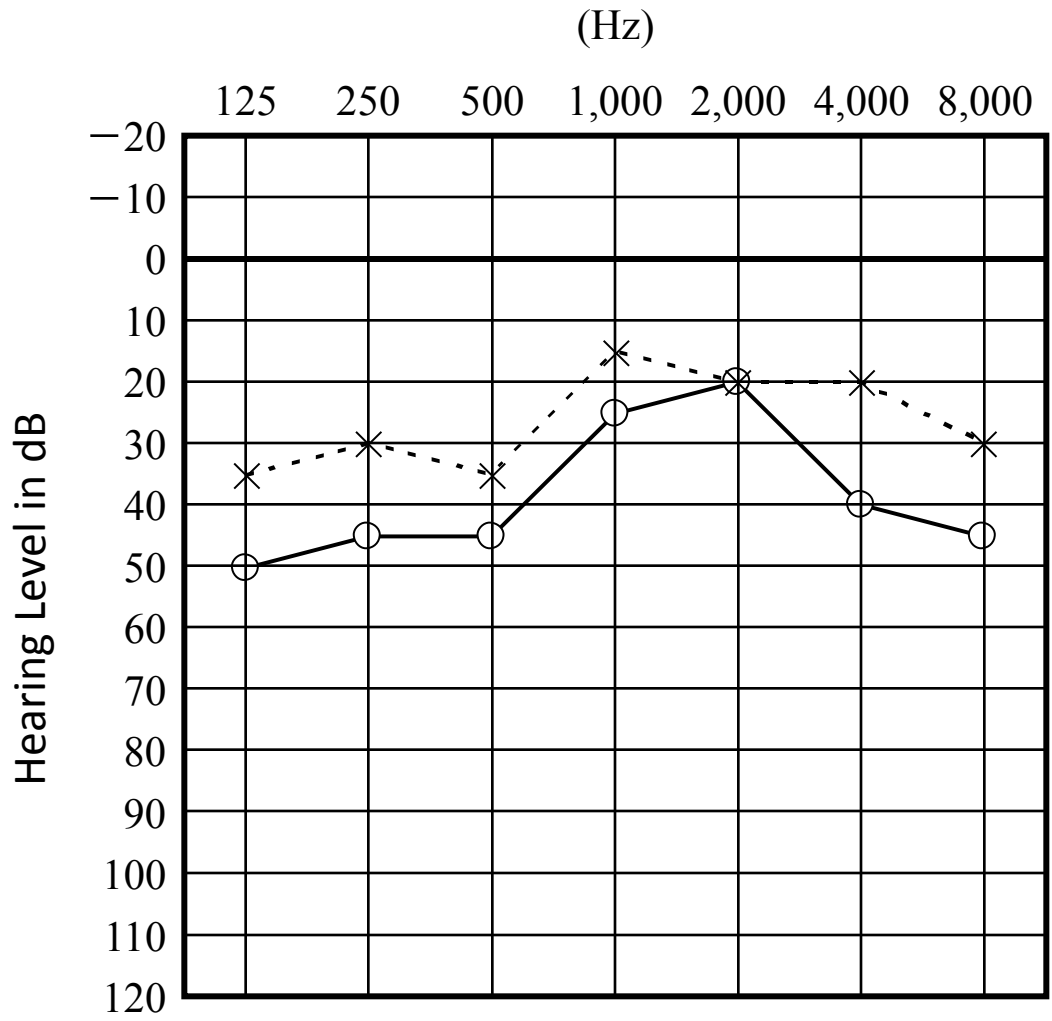


Fig4 Two months after the operation.  
Improvement of conductive hearing loss.



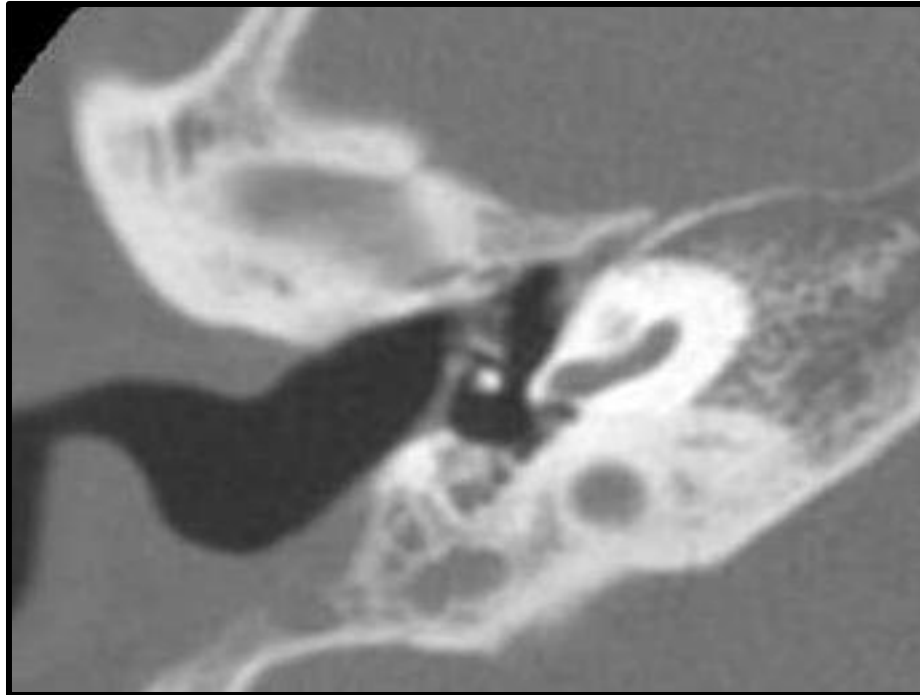


Fig5 Three months after operation. Good aeration in the tympanic cavity.

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## **FIGURE CAPTIONS**

Figure 1. The tympanic membrane showed a small perforation with copious, serous otorrhea.

Figure 2. Computed tomography on April 17, 2008 showed a soft tissue shadow occupying the middle ear and mastoid cavity.

Figure 3. Audiometry on March 3, 2008 revealed right conductive hearing loss.

Figure 4. Audiometry on July 11, 2008 showed improvement of the conductive hearing loss.

Figure 5. Computed tomography on August 29, 2008 demonstrated good aeration in the tympanic cavity.

Dear, Editor-in-Chief

ANL

Thank you for sending me the editorial response.

We agree with removing "The first case report of" from the title.

Thank you.

With best regards,

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On 2010/01/25, at 13:54, Auris Nasus Larynx wrote: