Response to Reviewers

Dear reviewer:

First, thank you for the detailed review. And, I corrected the points you pointed out.

Reviewer #1:

ID : 05821532

Specific Comments To Authors (File)

1. The topic can be changed into : Complete restoration of congenital conductive hearing loss by staged surgery: A case report and literature review

→ Thank you for your comments. We have revised this following your comments.

·Text in the previous version

Completely restored congenital conductive hearing loss by staged surgery: A case report and literature review

·Text in the revised manuscript

Complete restoration of congenital conductive hearing loss by staged surgery: A case report and literature review

2. Language should be polished all the paper

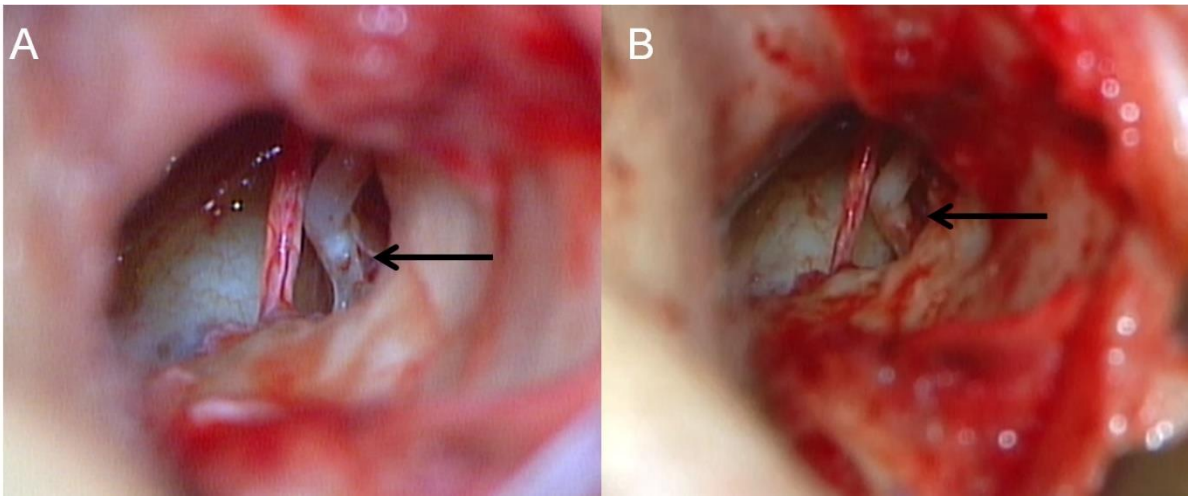
→ Thank you for your comments. Following your comments, this article has been re-edited by a professional English language editing company.

3. Figure 3 were not clear

→ Thank you for your comments. We have revised this following your comments.

·Text in the previous version

Figure 3. Microscopic findings during left-sided exploratory tympanotomy showing ossified stapedial tendon (A) before removal (B) after removal.

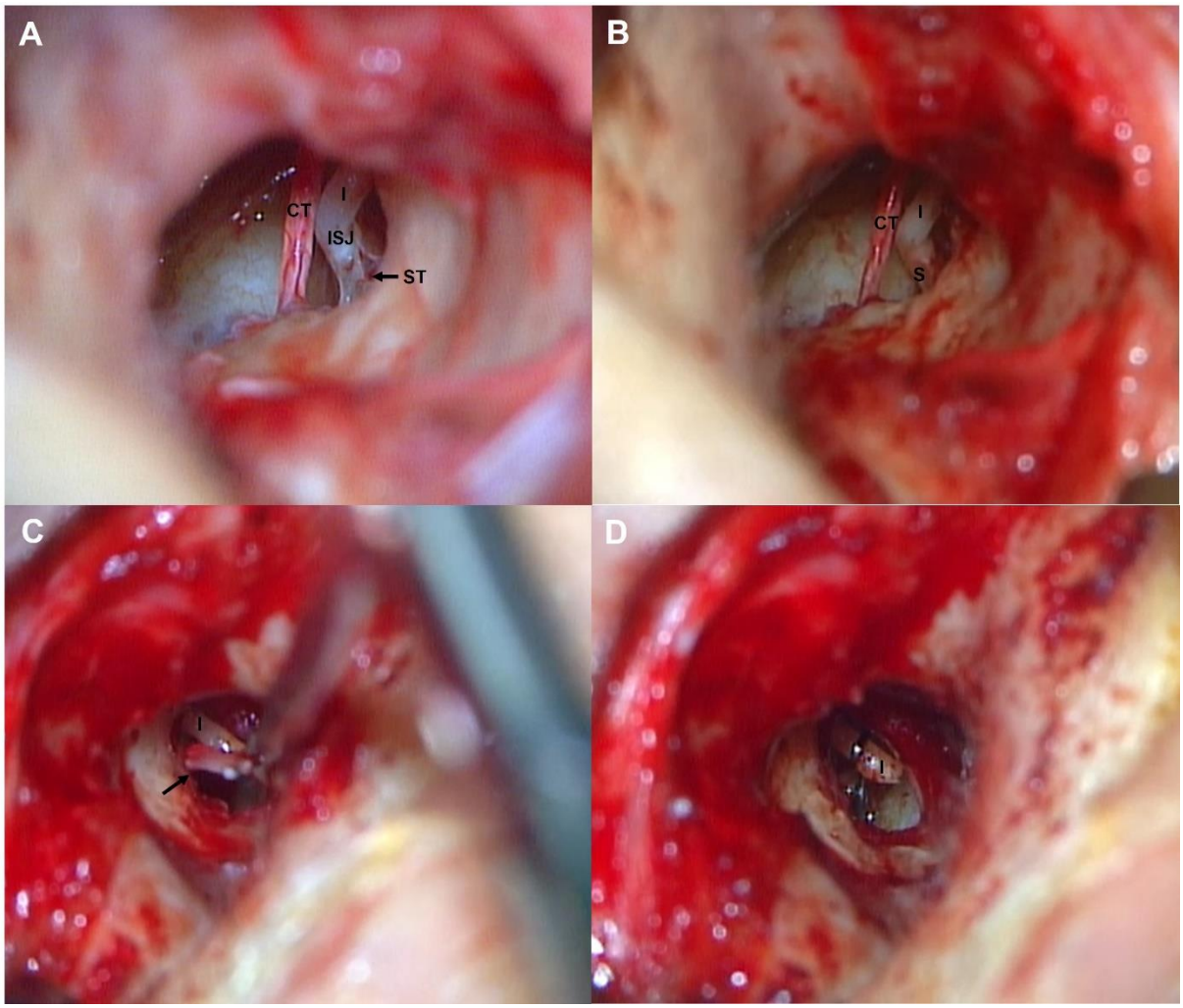



·Text in the revised manuscript

Figure 3. Microscopic findings of the ossified stapedial tendon (A) and after removal (B) observed during left-sided exploratory tympanotomy.

Microscopic findings of monorod-shaped stapes being removed (C) and after insertion of the piston wire (D) observed during right-sided stapedotomy.

CT: chorda tympani; I: incus; ISJ: incudo-stapedial joint; ST: stapedial tendon; S: stapes




## 4. Conclusion should be more concise

→ Thank you for your comments. We have revised this following your comments.

·Text in the previous version

Stapedial tendon ossification is a very rare disease that results in bilateral conductive hearing loss. In patients with bilateral conductive hearing loss with 40–50 dB ABG, if the eardrum is normal, otosclerosis and congenital middle ear malformations can be suspected. A detailed interpretation by temporal bone computed tomography is required before surgery, and even if there is no major abnormality, it is necessary to prepare for various possibilities. If stapedial tendon ossification is found, good progress can be expected through division. However, as in our case, when hearing improvement after surgery is insufficient, the

possibility of accompanying malformations should be considered and doubted. Thus, secondary surgery may be necessary, and successful results can be obtained when the comorbid anomaly is resolved.

·Text in the revised manuscript

Stapedial tendon ossification is a very rare disease that results in bilateral conductive hearing loss. If stapedial tendon ossification is found, good progress can be expected through division. In most previously reported case reports, the ABG was completely restored after surgery. However, as in our case, when hearing improvement after surgery is insufficient, the possibility of accompanying malformations should be considered and doubted. Thus, secondary surgery may be necessary, and successful results can be obtained when the comorbid anomaly is resolved.

Reviewer #2:

ID: 05827806

Specific Comments To Authors (File)

Evaluation

The findings of this case report are interesting. But the manuscript may need some revision.

1. I am not convinced that why they add so much old references in the manuscript.

→ Thank you for your comments. We have added references following your comments.


1. **Lee KS**, Park KH, Lee CK. A Case of Unilateral Conductive Hearing Loss Treated with Stapedial Tenotomy. Korean J Otorhinolaryngol-Head Neck Surg 2009; **52**:449-452. [PMID: DOI: 10.3342/kjorl-hns.2009.52.5.449]
2. **Wetmore SJ**, Gross AF. Congenital fixation of the head of the stapes in three family members. Ear Nose Throat J. 2011 Aug;90; **8**:360-366. [PMID: DOI:

10.1177/014556131109000809]
3. **Ulkü CH**. İzole stapedial tendon ossifikasyonu: Olgu sunumu [Isolated stapedius tendon ossification: a case report]. Kulak Burun Bogaz Ihtis Derg. 2011;21; **2**:95-97. [PMID: DOI: 10.5606/kbbihtisas.2011.007]
4. **Chan KC**. Stapes-pyramidal fixation by a bony bar. Ear Nose Throat J. 2016;95; 10-11:E40-E41. [PMID: DOI: 10.1177/014556131609510-1105]

2. The procedure of the second operation in the case introduction section was too simple.

→ Thank you for your comments. We have revised this following your comments.

·Text in the previous version

Therefore, stapedotomy was performed.

·Text in the revised manuscript

Therefore, stapedotomy was planned. After measuring the length between the incus and the stapes, a small hole was made with a perforator, and a window was made on the posterior side of the footplate using a skeeter drill. A piston wire (0.4×5 mm) was hung over the long process of the incus and fixed using a crimper. Subsequently, the operation was terminated.

3. And a question, why they do the same surgery on the left ear after the first surgery on the right ear didn't work out so well.

→ Thank you for your comments. At the time of the first operation on the right, we planned a stapedotomy, mistaken for otosclerosis. We thought that separating the I-S joint in the process made the hearing improvement insufficient. After division of only the stapedial tendon without separation of the I-S joint during surgery on the left side, the mobility of the stapes improved than before. Therefore, as in the previous case reports, we expected proper hearing recovery and the operation was terminated. We have revised this following your comments. We described in more detail in the treatment.

·Text in the previous version

One month later, an explo-tympanotomy was performed on the contralateral side, and the same stapedial tendon ossification was observed; only the stapedial tendon was divided with a fine burr without any other treatment (Figure 3).

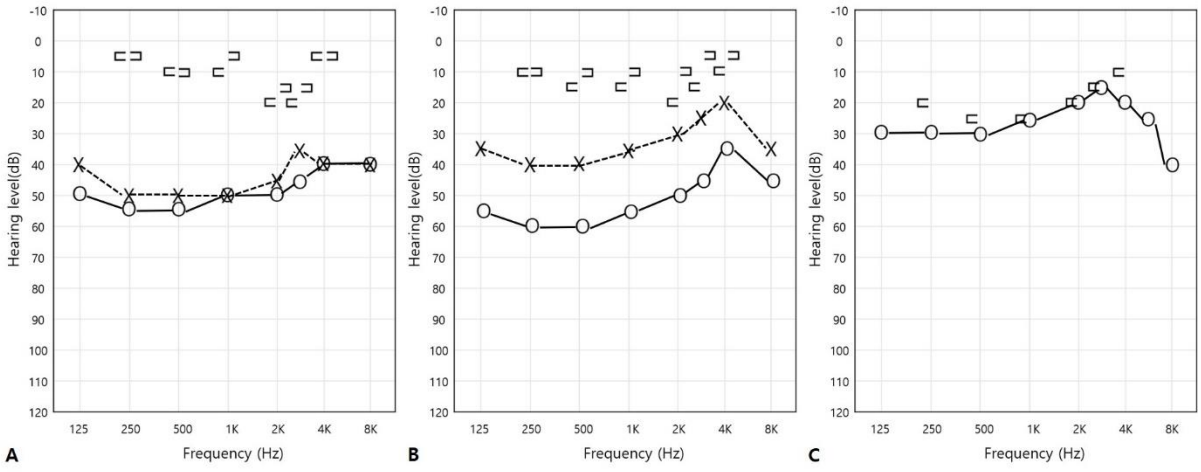
·Text in the revised manuscript

One month later, an explo-tympanotomy was performed on the contralateral side, and the same stapedial tendon ossification was observed; only the stapedial tendon was divided with a fine burr without any other treatment (Figure 3). After dividing only the stapedial tendon on the left side, the mobility of the stapes improved. Because the patient was under general anesthesia, we ended the operation in anticipation of proper hearing recovery.

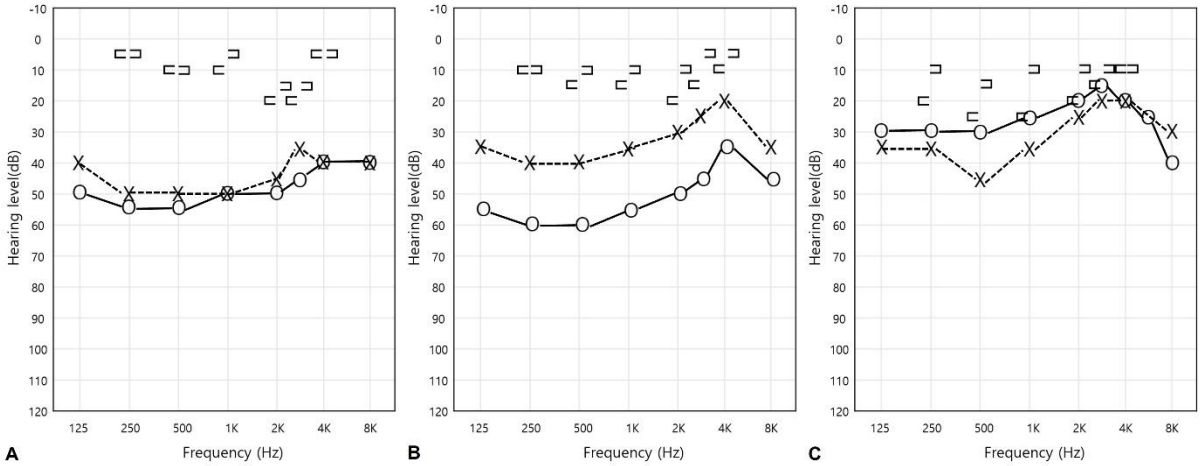
4. PTA should consistently compare the same side, such as the right ear.

→ Thank you for your comments. PTA has been consistently measuring both sides. We have added left-sided PTA following your comments.

·Text in the previous version




·Text in the revised manuscript

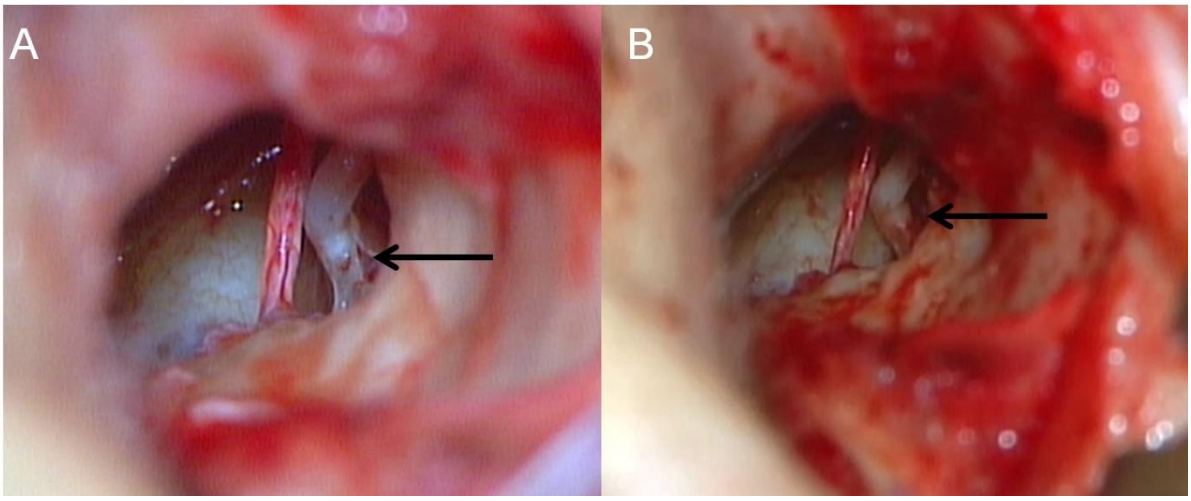



5. In addition, they may also provide the microscopic findings during the surgery during the right-sided ear.

→ Thank you for your comments. Although a picture was taken during the first operation on the right, the focus and quality of the image were inadequate due to transcanal approach. Therefore, during left side surgery, the surgical field was secured through an endaural approach and photographs were taken. Also, since both sides had the same lesion, I thought that the picture on the left would be sufficient. Following your comments, we have added a photo of the second operation on the right.

·Text in the previous version

Figure 3. Microscopic findings during left-sided exploratory tympanotomy showing ossified stapedial tendon (A) before removal (B) after removal.




·Text in the revised manuscript

Figure 3. Microscopic findings of the ossified stapedial tendon (A) and after removal (B) observed during left-sided exploratory tympanotomy.

Microscopic findings of monorod-shaped stapes being removed (C) and after insertion of the piston wire (D) observed during right-sided stapedotomy.

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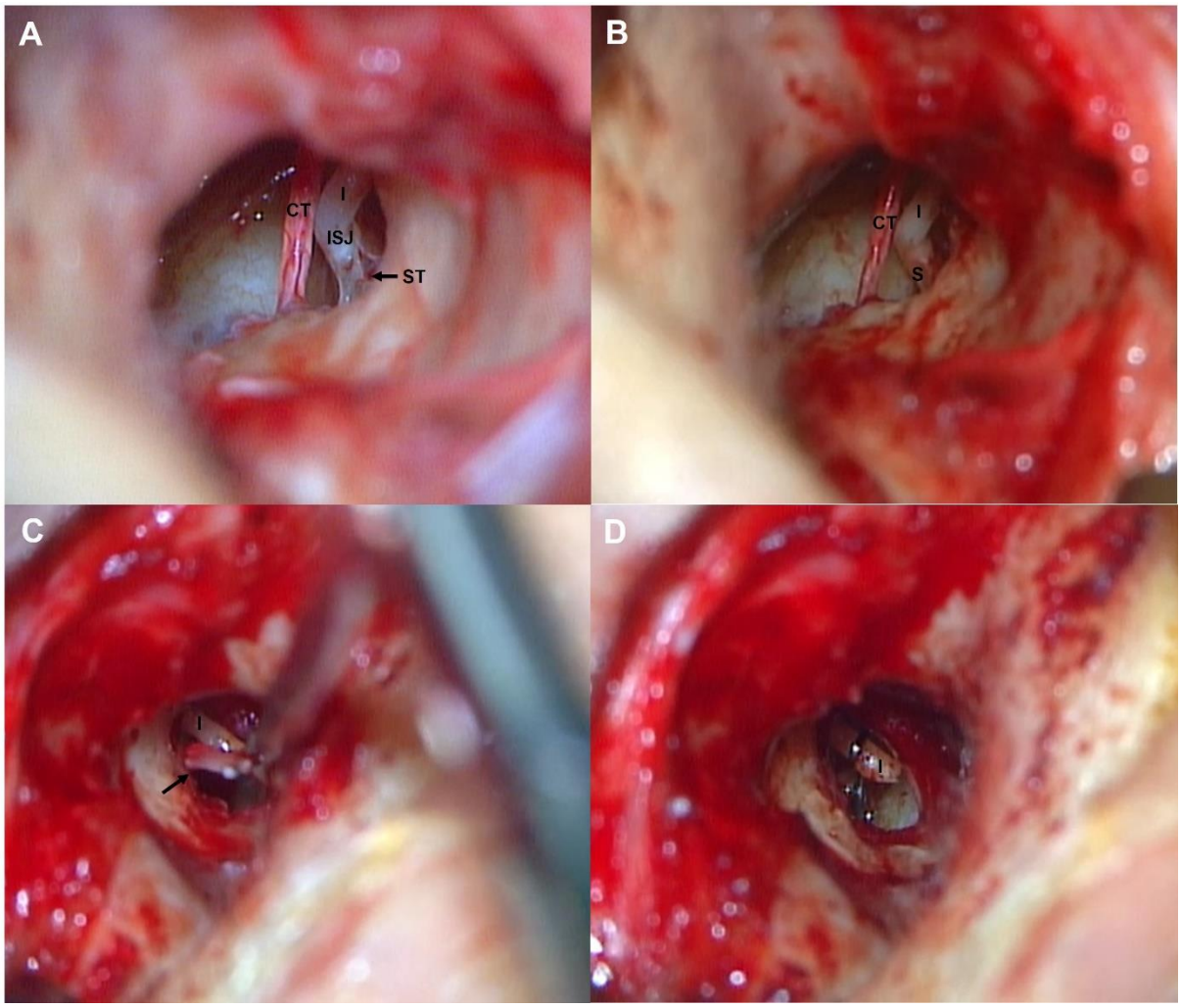


6. The discussion section is not sufficient. In particular, the discussion of diagnosis and therapy is too simplistic.

We have revised this following your comments. We described in more detail in the discussion.

·Text in the revised manuscript

Stapedial tendon ossification can be diagnosed using preoperative CT and exploratory tympanotomy. On temporal bone CT, it can be diagnosed as a linear image from the pyramidal eminence to the stapes superstructure[7]. Based on these findings, it can be differentiated from otosclerosis[16]. A definitive diagnosis is to directly confirm the

ossification of the stapedius tendons that fixes the stapes through tympanotomy. The treatment involves dividing the tendon between the stapes and the pyramidal eminence. After securing a sufficient surgical field, it is carefully performed using a microdrill or laser. Hearing was significantly restored by division of the stapedial tendon as a treatment. The average ABG before surgery was 30 dB, which closed after the surgery[2-6,10] (Table 1).

7. Finally the manuscript requires English editing to correct the grammar and flow.

→ Thank you for your comments. Following your comments, this article has been re-edited by a professional English language editing company.

Thank you for your review again.

Best regards,

Eun Jung Lee