



1

:
 : 8 (: =4:4,8 - 41)
 CT
 , , ,
 , CT
 : 가
 가 5 , 3 가 0.5 cm, 가 1.2
 cm 0.6 cm .
 5 (63%) 가 ,
 2 (25%), 1 .
 3 . 1 35 가 5 ,

(otologist)

가 ,

(exostoses)

가

1994 6 2002 2
 (Computed tomography; CT

, Graham(1)

) 8
 가 4 , 가 4 8 41
 21.4 .

Kemink (2)
 (fibrovascular)
 Fenton (3)

가

(aural fullness),
 CT GE CT/i GE high speed (GE Medical System,
 Milwaukee, Wisconsin, U.S.A.)
 1 mm , (bone algorithm)

CT

가

(cancellous form) , (lobulation)
 (dense) (compact form)
 가
 35 가 1 1
 1 , 34 가 0.5 cm, 가 1.2
 cm 0.6 cm
 (osteocondral junction)
 (stalk) (antero - inferior
 wall) 5 (63%) 가 , (antero - superior
 wall), 2 (25%), (anterior wall)

Table 1. Summary of Clinical and Radiologic Findings in 8 Patients with Osteoma of External Auditory Canal

Patient No.	Sex	Age [y]	Site (R/L)	Symptom	Location	Shape	Density	Size (cm)
1	M	41	L	Aural fullness	AI	P	Co	1.0
2	F	20	R	Aural fullness	AI	P	Ca	1.0
3	F	15	L	Otorrhea	A	P	Ca	0.8
4	M	22	R	Otorrhea	AS	P	Co	1.2
5	F	19	L	Otalgia	AI	P	Ca	0.9
6	F	8	L	-	AI	P	Co	0.9
7	M	30	L	Aural fullness	AI	P	Co	0.6
8	M	16	R	Aural fullness	AS	P	Co	0.5

R: Right, L: Left, AI: Anteroinferior, A: Anterior, AS: Anterosuperior, P: Pedunculated, Co: Compact form, Ca: Cancellous form

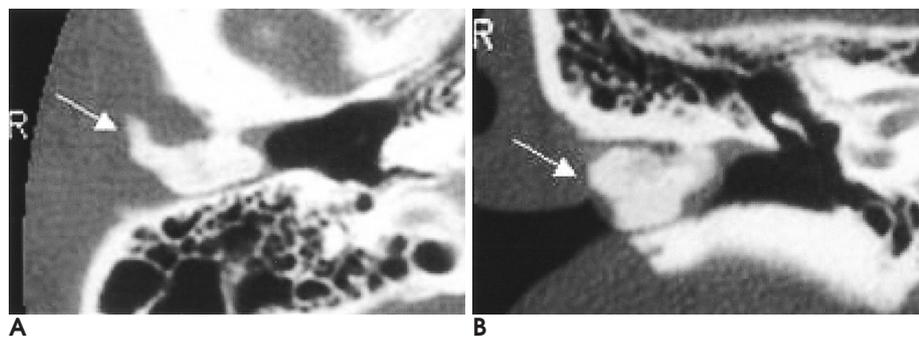


Fig. 1. Osteoma of the right external auditory canal in a 22-year-old man with external otitis.

A. Axial CT scan of the right temporal bone shows a pedunculated bony mass (arrow) located at the lateral part of the external auditory canal.

B. Coronal CT scan demonstrates the stalk connecting the mass (arrow) to the anterosuperior portion of the ear canal.

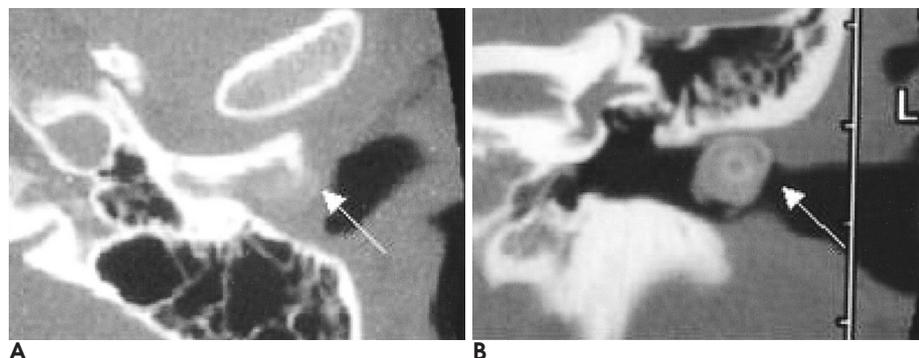


Fig. 2. Osteoma of the left external auditory canal in a 15-year-old woman with external otitis.

A. Axial CT scan of the left temporal bone demonstrates the string-like thin stalk (black arrow) connecting the mass (white arrow) to the anterior wall of the ear canal.

B. Coronal CT scan shows a cancellous form of osteoma (arrow) located at the lateral part of the external auditory canal.

(4). , 20:1 10
 가가 , 가 .
 가 (5), Smelt (6)
 3
 Sheehy (8) 16
 3 (18.8%) 15 . 7 (44%)가 30
 (1). , 6 (38%) 50
 가 8 5 가 20 21.4
 가 (Gardner's
 syndrome)
 (7). 가 (3).
 20 가 가
 (Surfur' (debris) 가
 s ear) (Australian ear) 가

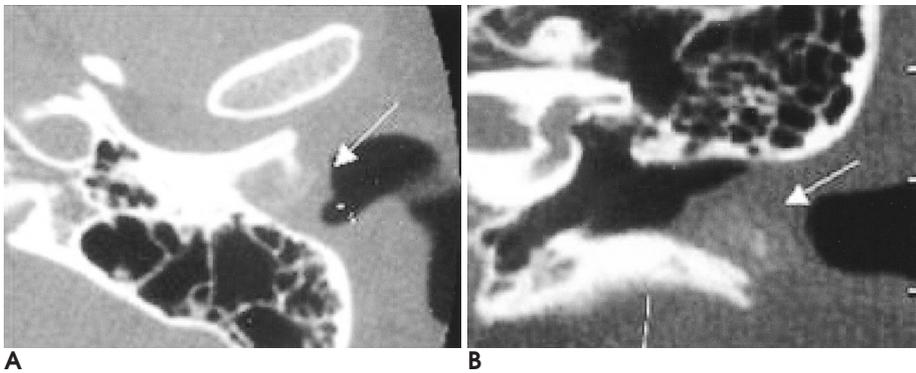


Fig. 3. 22-year-old female with osteoma of left external auditory canal. Axial (A) and coronal (B) CT scan show cancellous form of osteoma. After 35 months, axial (C) and coronal (D) CT scan demonstrate that ossification of the cancellous osteoma (arrow) was advanced.

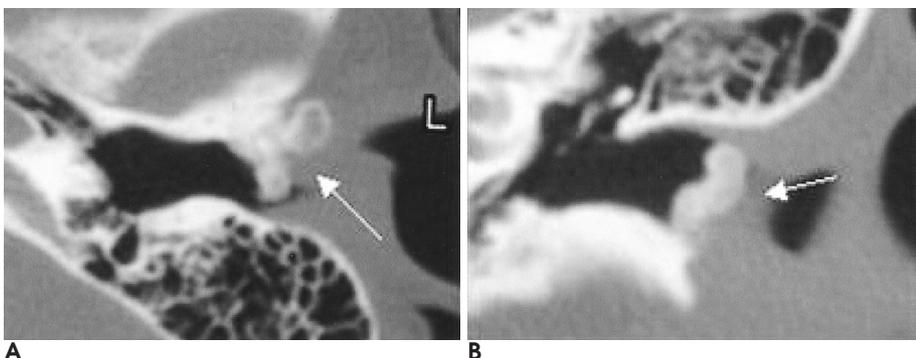


Fig. 4. Osteoma of left external auditory canal in a 8-year-old female who underwent surgical resection 34 months ago and in whom recurrence was clinically suspected. Axial (A) and coronal (B) CT scan demonstrate that the cauliflower-shaped, osseous mass (arrow) is attached to the anteroinferior wall of the ear canal.

가
Graham (1) Kemink (2)
(lamellated bone)
like blood vessels) 가

, 34

(sinusoidal -

CT

가

Fenton (3)
가

CT

가 가

3

. 1
, 2
, 3
(9).

가

(7).

5 , 3

Hsiao (9) (10)

CT
가

가

(8).

8 2 (25%)

가

가

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CT Findings of the Osteoma of the External Auditory Canal¹

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Purpose: We wanted to report the CT image findings of the osteoma of the external auditory canal.

Materials and Methods: Temporal bone CT scanning was performed on eight patients (4 males and 4 females aged between 8 and 41 years) with pathologically proven osteoma of the external auditory canal after operation, and the findings of the CT scanning were retrospectively reviewed. Not only did we analyze the size, shape, distribution and location of the osteomas, we also analyzed the relationship between the lesion and the tympanosquamous or tympanomastoid suture line, and the changes seen on the CT scan images for the patients who were able to undergo follow-up.

Results: All the lesions of the osteoma of the external auditory canal were unilateral, solitary, pedunculated bony masses. In five patients, the osteomas occurred on the left side and for the other three patients, the osteomas occurred on the right side. The average size of the osteoma was 0.6 cm with the smallest being 0.5 cm and the largest being 1.2 cm. Each of the lesions was located at the osteochondral junction in the terminal part of the osseous external ear canal. The stalk of the osteoma of the external auditory canal was found to have occurred in the anteroinferior wall in five cases (63%), in the anterosuperior wall (the tympanosquamous suture line) in two cases (25%), and in the anterior wall in one case. The osteoma of the external auditory canal was a compact form in five cases and it was a cancellous form in three cases. One case of the cancellous form was changed into a compact form 35 months later due to the advanced ossification.

Conclusion: Osteoma of the external auditory canal developed in a unilateral and solitary fashion. The characteristic image findings show that it is attached to the external auditory canal by its stalk. Unlike our common knowledge about its occurrence, osteoma mostly occurred in the tympanic wall, and this is regardless of the tympanosquamous or tympanomastoid suture line.

Index words : Osteoma

Ear, CT

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