

On-line Table 1: Comparison of visibility scores between MSCT and FPA for each anatomic structure

Anatomic Structures	MSCT	FPA	P Value ^a
Tympanic membrane	1.65 ± 0.38	1.34 ± 0.44	.040
Handle of malleus	2.00 ± 0.00	1.98 ± 0.09	.317
Head of malleus	2.00 ± 0.00	1.98 ± 0.09	.317
Bone marrow of malleus	1.71 ± 0.34	1.07 ± 0.67	<.001
Incudomalleolar joint	1.60 ± 0.36	1.40 ± 0.40	.053
Incus body	2.00 ± 0.00	1.98 ± 0.09	.317
Bone marrow of incus	1.66 ± 0.50	1.21 ± 0.73	.018
Long process of incus	1.97 ± 0.18	1.96 ± 0.18	1.000
Short process of incus	1.95 ± 0.20	2.00 ± 0.00	.154
Lenticular process of incus	1.91 ± 0.23	1.93 ± 0.22	.700
Incudostapedial joint	1.59 ± 0.37	1.81 ± 0.31	.012
Head of stapes	1.88 ± 0.25	1.95 ± 0.15	.265
Anterior crus of stapes	1.47 ± 0.48	1.88 ± 0.28	<.001
Posterior crus of stapes	1.36 ± 0.49	1.84 ± 0.30	<.001
Footplate of stapes	1.36 ± 0.58	1.88 ± 0.25	<.001
Tendon of tensor tympani	1.95 ± 0.20	1.66 ± 0.42	<.001
Stapedius muscle	0.31 ± 0.48	1.10 ± 0.69	<.001
Anterior ligament of malleus	0.38 ± 0.47	0.77 ± 0.51	.004
Superior ligament of malleus	0.47 ± 0.49	0.50 ± 0.51	.811
Lateral ligament of malleus	0.71 ± 0.57	1.07 ± 0.57	.200
Posterior ligament of incus	0.69 ± 0.73	0.62 ± 0.59	.884
Bony labyrinth of cochlea	1.93 ± 0.25	1.98 ± 0.09	.530
Interscalar septum of cochlea	1.98 ± 0.09	1.69 ± 0.33	<.001
Modiolus of cochlea	1.86 ± 0.29	1.28 ± 0.43	<.001
Vestibular aqueduct	1.84 ± 0.33	1.93 ± 0.17	.298
Cochlear aqueduct	1.21 ± 0.54	1.41 ± 0.55	.141
Geniculate ganglion	1.97 ± 0.12	1.96 ± 0.18	.584
Bony facial canal	1.17 ± 0.61	1.47 ± 0.51	.630
Chorda tympani	1.57 ± 0.65	1.93 ± 0.29	.003
Greater petrosal nerve	1.33 ± 0.68	1.52 ± 0.66	.120
Summed score	45.44 ± 3.03	47.15 ± 2.86	.035

^a Mann-Whitney test.

On-line Table 2: Doses of FPA and MSCT for TLD sites

TLD Sites	FPA		MSCT	
	Mean (mSV)	CV (%)	Mean (mSV)	CV (%)
1) Anterior skull	2.2	19.0	12.5	12.5
2) Left side of skull	16.0	34.5	11.1	26.5
3) Posterior skull	17.5	31.6	13.3	2.9
4) Midbrain	18.4	33.3	19.6	11.2
5) Hypophysis	24.3	9.1	45.8	8.5
6) Right orbit	9.7	13.9	48.2	9.0
7) Left orbit	5.2	8.3	48.8	10.7
8) Right lens of eye	2.8	27.9	53.8	1.9
9) Frontal sinus	2.5	9.4	53.8	1.4
10) Right cheek	10.4	7.7	44.6	6.1
11) Right parathyroid gland	24.3	6.8	38.0	16.2
12) Left parathyroid gland	21.1	29.8	38.2	6.1
13) Right mandibular branch	33.4	5.4	45.4	18.2
14) Left mandibular branch	28.8	40.7	48.2	15.7
15) Cervical spine	21.8	12.2	41.0	19.3
16) Left back of the neck	10.7	40.6	14.8	22.9
17) Right mandibular body	8.5	28.0	13.1	21.1
18) Left mandibular body	9.4	36.6	13.8	14.9
19) Right submandibular gland	6.6	30.1	11.6	0.9
20) Left submandibular gland	5.8	32.1	10.5	15.5
21) Central sublingual gland	3.6	21.8	8.1	9.8
22) Midline thyroid	1.4	25.6	3.7	12.2
23) Left thyroid surface	1.6	23.5	3.8	18.3
24) Esophagus	1.5	14.8	3.7	6.3
25) Right external lens of eye	1.7	30.7	43.9	1.8
26) Left external lens of eye	1.8	28.5	47.9	7.5

Note:—CV indicates variation coefficient.

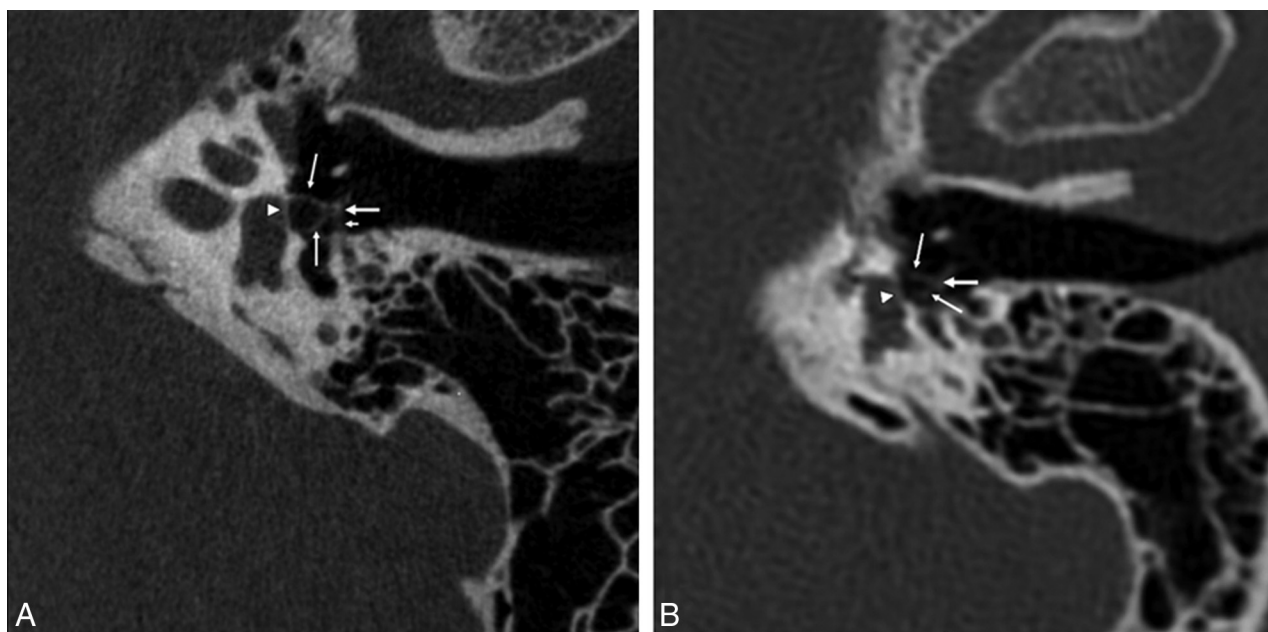
On-line Table 3: Observers' sensitivity in detecting the anatomic structures and interobserver agreement

Anatomic Structures	MSCT				FPA			
	Sensitivity (Readers A and B)	Percentage of Agreement	Percentage of Expected Agreement	κ^a	Sensitivity (Readers A and B)	Percentage of Agreement	Percentage of Expected Agreement	κ^a
Tympanic membrane	1.00 (29/29) 0.97 (28/29)	97	97	0	0.97 (28/29) 0.97 (28/29)	100	93	1
Handle of malleus	1.00 (29/29) 1.00 (29/29)	100	100	—	1.00 (29/29) 1.00 (29/29)	100	100	—
Head of malleus	1.00 (29/29) 1.00 (29/29)	100	100	—	1.00 (29/29) 1.00 (29/29)	100	100	—
Bone marrow of malleus	0.93 (27/29) 0.97 (28/29)	97	90	0.6	0.69 (20/29) 0.76 (22/29)	79	60	0.5
Incudomalleolar joint	0.97 (28/29) 1.00 (29/29)	97	97	0	0.97 (28/29) 1.00 (29/29)	97	97	0
Incus body	1.00 (29/29) 1.00 (29/29)	100	100	—	1.00 (29/29) 1.00 (29/29)	100	100	—
Bone marrow of incus	0.90 (26/29) 0.93 (27/29)	90	84	0.3	0.76 (22/29) 0.72 (21/29)	76	58	0.4
Long process of incus	1.00 (29/29) 1.00 (29/29)	97	97	0	1.00 (29/29) 1.00 (29/29)	97	97	0
Short process of incus	0.97 (28/29) 1.00 (29/29)	50	50	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Lenticular process of incus	0.97 (28/29) 1.00 (29/29)	97	97	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Incudostapedial joint	0.97 (28/29) 1.00 (29/29)	97	97	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Head of stapes	0.97 (28/29) 1.00 (29/29)	97	97	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Anterior crus of stapes	0.97 (28/29) 0.93 (27/29)	90	90	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Posterior crus of stapes	0.97 (28/29) 0.90 (26/29)	93	87	0.5	1.00 (29/29) 1.00 (29/29)	100	100	—
Footplate of stapes	0.90 (26/29) 0.86 (25/29)	90	79	0.5	1.00 (29/29) 1.00 (29/29)	100	100	—
Tendon of tensor tympani	1.00 (29/29) 1.00 (29/29)	100	100	—	1.00 (29/29) 1.00 (29/29)	97	97	0.01
Stapedius muscle	0.31 (9/29) 0.17 (5/29)	72	62	0.3	0.69 (20/29) 0.76 (22/29)	72	59	0
Anterior ligament of malleus	0.41 (12/29) 0.07 (2/29)	58	57	0	0.79 (23/29) 1.00 (29/29)	64	49	0.3
Superior ligament of malleus	0.55 (26/29) 0.10 (3/29)	55	46	0.2	0.48 (14/29) 0.21 (6/29)	52	51	0
Lateral ligament of malleus	0.59 (17/29) 0.48 (14/29)	59	50	0.2	0.79 (23/29) 0.59 (17/29)	41	50	−0.2
Posterior ligament of incus	0.52 (15/29) 0.38 (11/29)	72	50	0.5	0.55 (16/29) 0.31 (9/29)	62	48	0.3
Bony labyrinth of cochlea	1.00 (29/29) 1.00 (29/29)	93	93	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Interscalar septum of cochlea	1.00 (29/29) 1.00 (29/29)	100	100	—	1.00 (29/29) 1.00 (29/29)	100	100	—
Modiolus of the cochlea	1.00 (29/29) 1.00 (29/29)	100	100	—	0.93 (28/29) 1.00 (29/29)	93	93	0
Vestibular aqueduct	0.97 (28/29) 1.00 (29/29)	97	97	0	1.00 (29/29) 1.00 (29/29)	100	100	—
Cochlear aqueduct	0.52 (15/29) 0.97 (28/29)	97	97	0	0.72 (21/29) 0.97 (28/29)	75	70	0.2
Geniculate ganglion	1.00 (29/29) 1.00 (29/29)	100	100	—	1.00 (29/29) 1.00 (29/29)	97	97	0
Bony facial nerve canal	0.59 (17/29) 0.97 (28/29)	55	58	0	0.79 (23/29) 1.00 (29/29)	79	79	0
Chorda tympani	0.90 (26/29) 0.79 (23/29)	90	73	0.6	1.00 (29/29) 0.97 (28/29)	97	97	0
Greater petrosal nerve	0.79 (23/29) 0.69 (20/29)	69	61	0.2	0.72 (21/29) 0.86 (25/29)	72	66	0.2

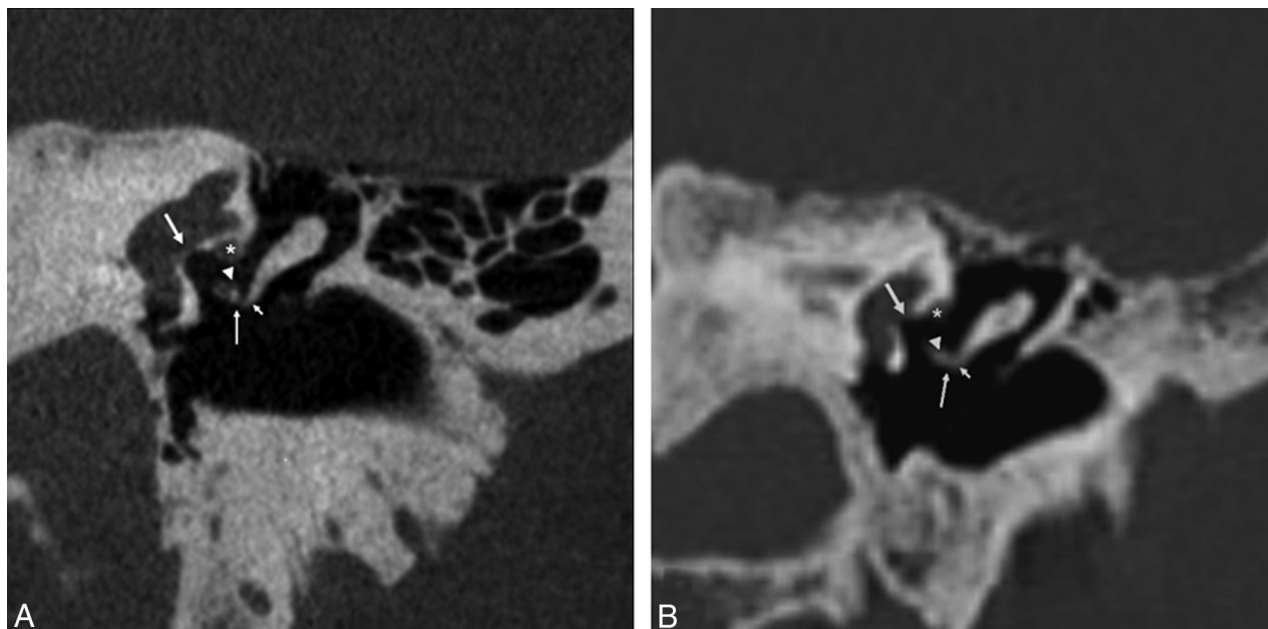
^a Cohen κ statistic.



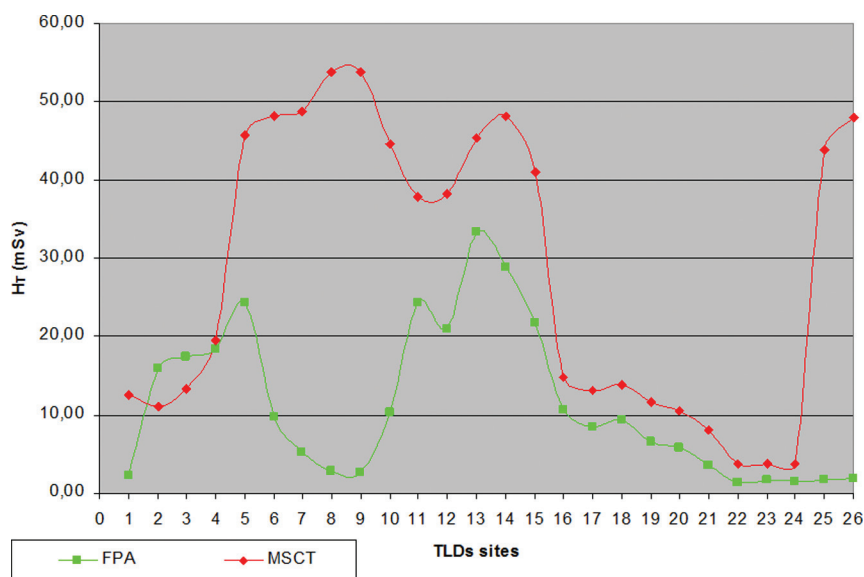
ON-LINE FIG 1. The modiolus and the interscalar septum of the cochlea on axial FPA (A) and MSCT (B) images. On the MSCT image, the modiolus (arrow) is well-depicted, while on the FPA image, it appears indiscernible from the basal turn of the cochlea posteriorly. MSCT better depicts the interscalar septum (short arrows), which is not well-depicted on the FPA image.



ON-LINE FIG 2. The stapes on axial FPA (A) and MSCT (B) images. The crura (arrows), head (thick arrow), and footplate (arrowhead) of the stapes and the stapedius muscle (short arrow) are clearly detectable on the FPA image. In contrast, MSCT is less optimal in depicting these structures.



ON-LINE FIG 3. The incudostapedial joint on coronal FPA (A) and MSCT (B) images. The FPA allows a clear identification of the incudostapedial joint (arrow) between the lenticular process (short arrow) of the incus and the head (arrowhead) of the stapes. These structures are less well-delineated by MSCT. Note the bony facial nerve canal (asterisk) and oval window (thick arrow).



ON-LINE FIG 4. The doses (H_T) in each TLD site for FPA (green line) and MSCT (red line): 1) anterior skull, 2) left side skull, 3) posterior skull, 4) midbrain, 5) hypophysis, 6) right orbit, 7) left orbit, 8) right lens of the eye, 9) frontal sinus, 10) right cheek, 11) right parathyroid gland, 12) left parathyroid gland, 13) right mandibular branch, 14) left mandibular branch, 15) cervical spine, 16) left back of the neck, 17) right mandibular body, 18) left mandibular body, 19) right submandibular gland, 20) left submandibular gland, 21) central sublingual gland, 22) midline thyroid, 23) left thyroid surface, 24) esophagus, 25) right external lens of eye, 26) left external lens of eye.