

Sessionepraticadi contouring

**Silvia Scoccianti
Firenze**



Pituitary gland

IMI

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Università degli Studi
"G. d'ANNUNZIO"

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INCONTRO CON GLI ESPERTI - IX EDIZIONE

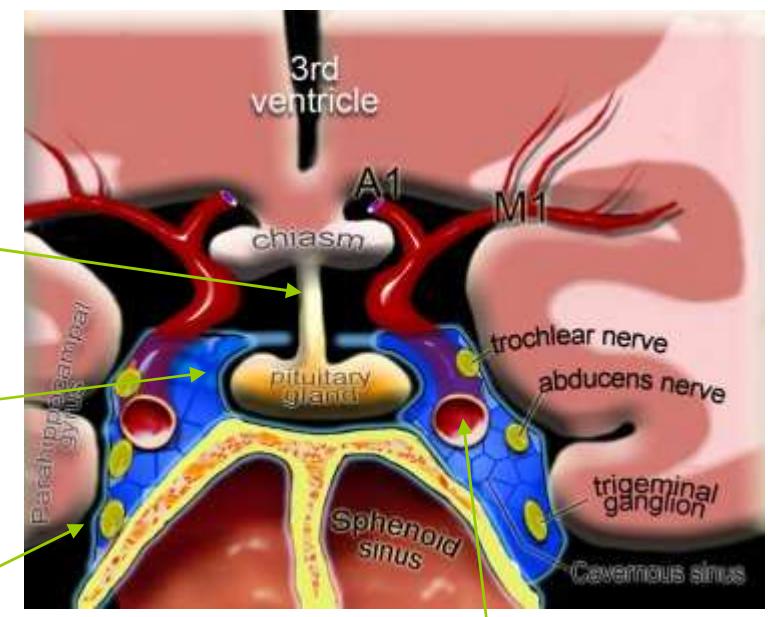
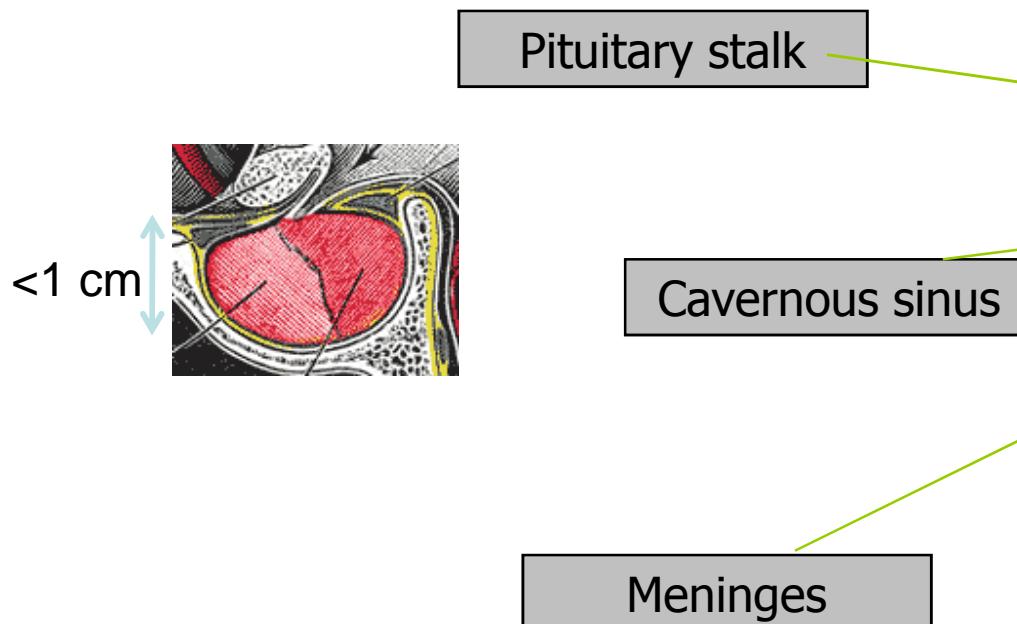
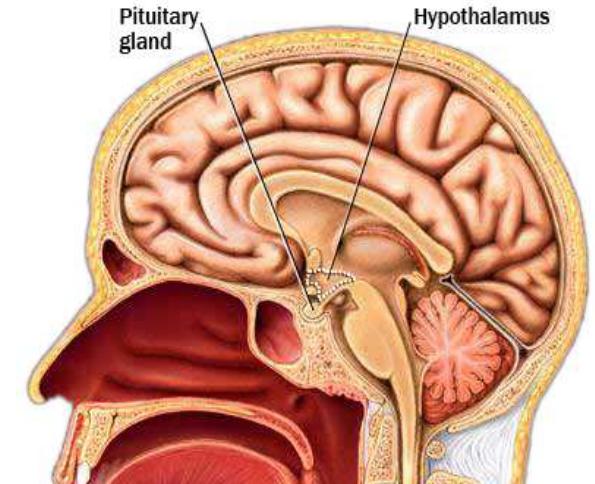
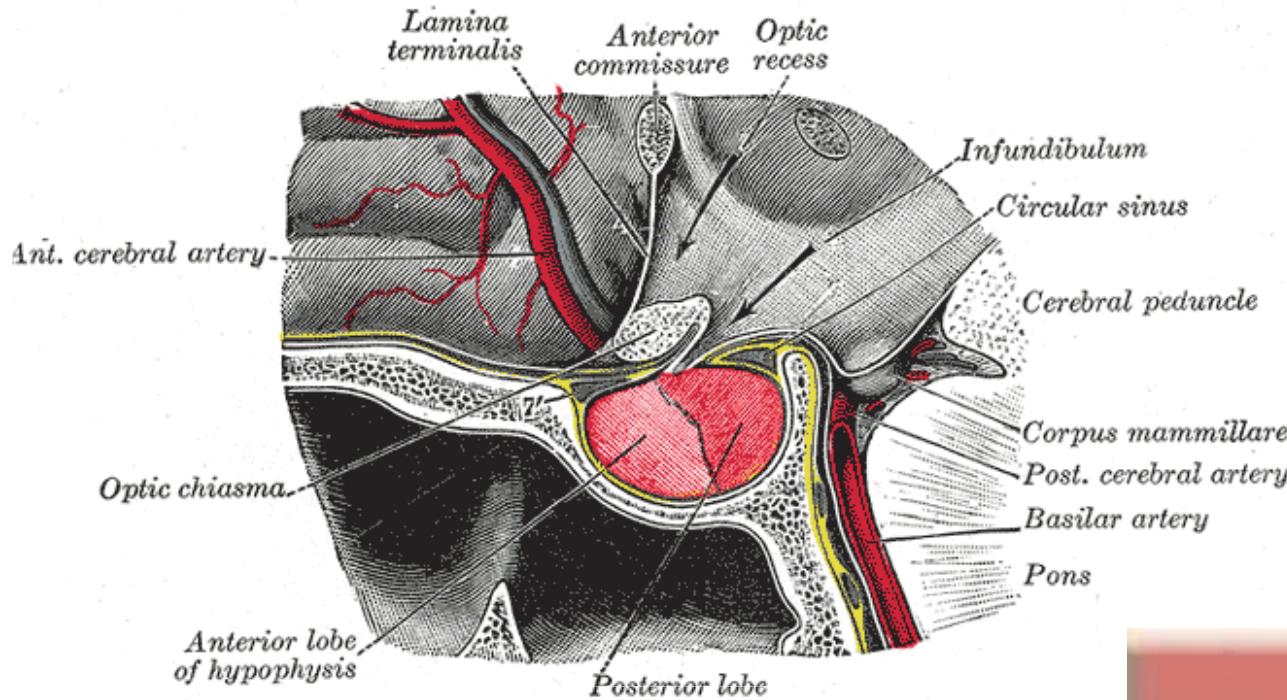
**LE TERAPIE INTEGRATE
NEI TUMORI DEL SISTEMA
NERVOSO NELL'ADULTO
E NEL BAMBINO**

DAL MANAGEMENT
CLINICO
AL PLANNING
RADIOTERAPICO

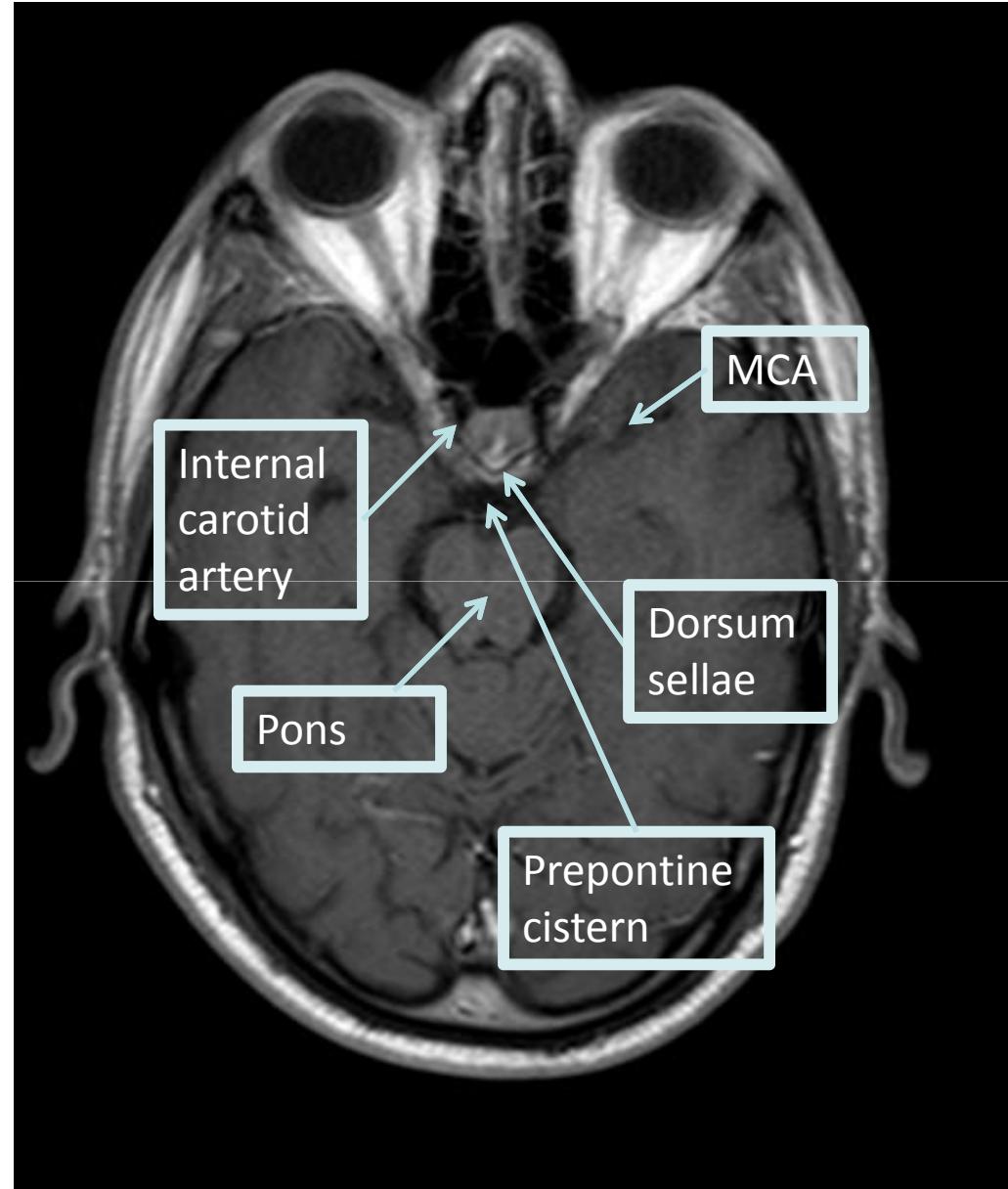
17 e 18
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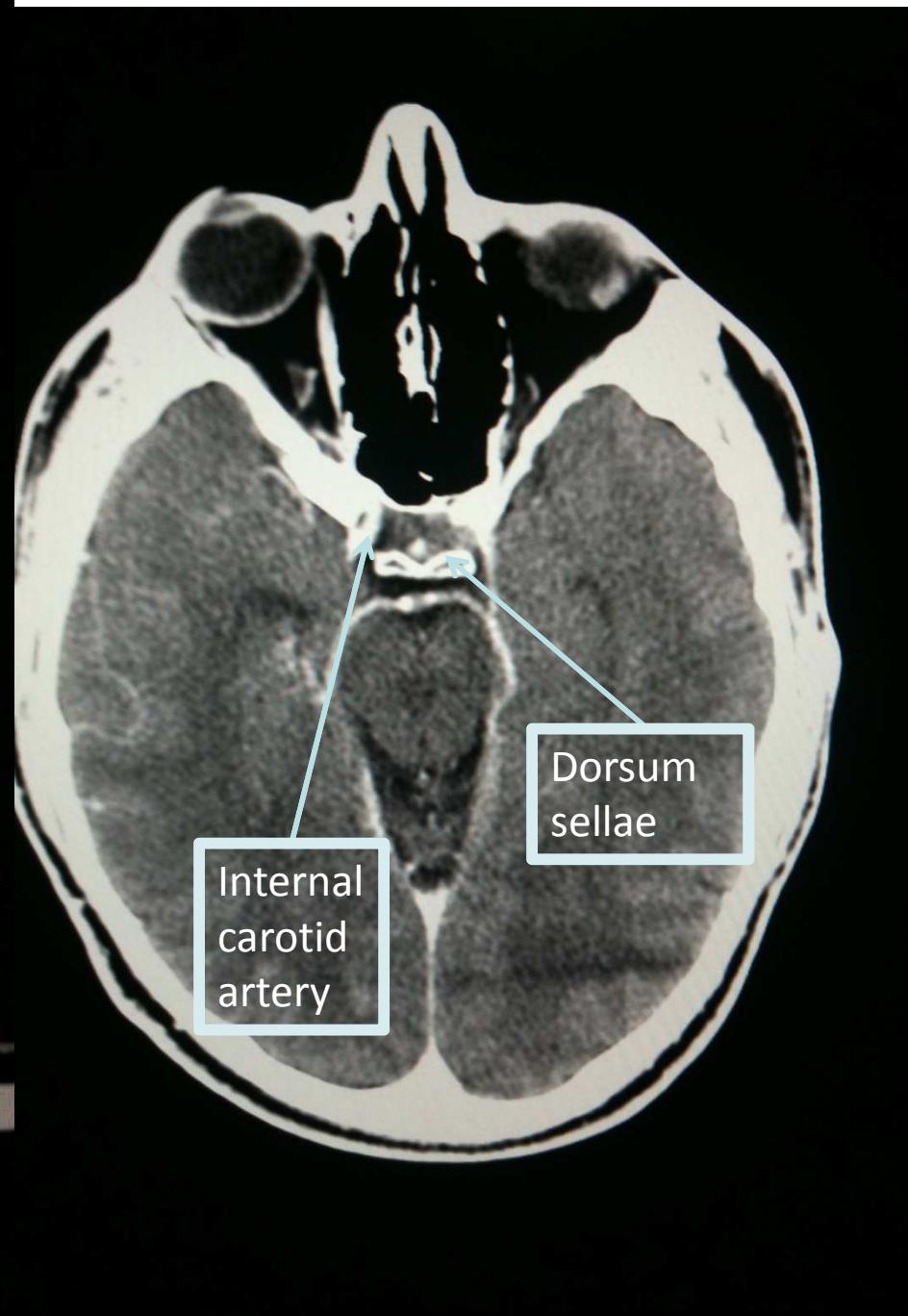
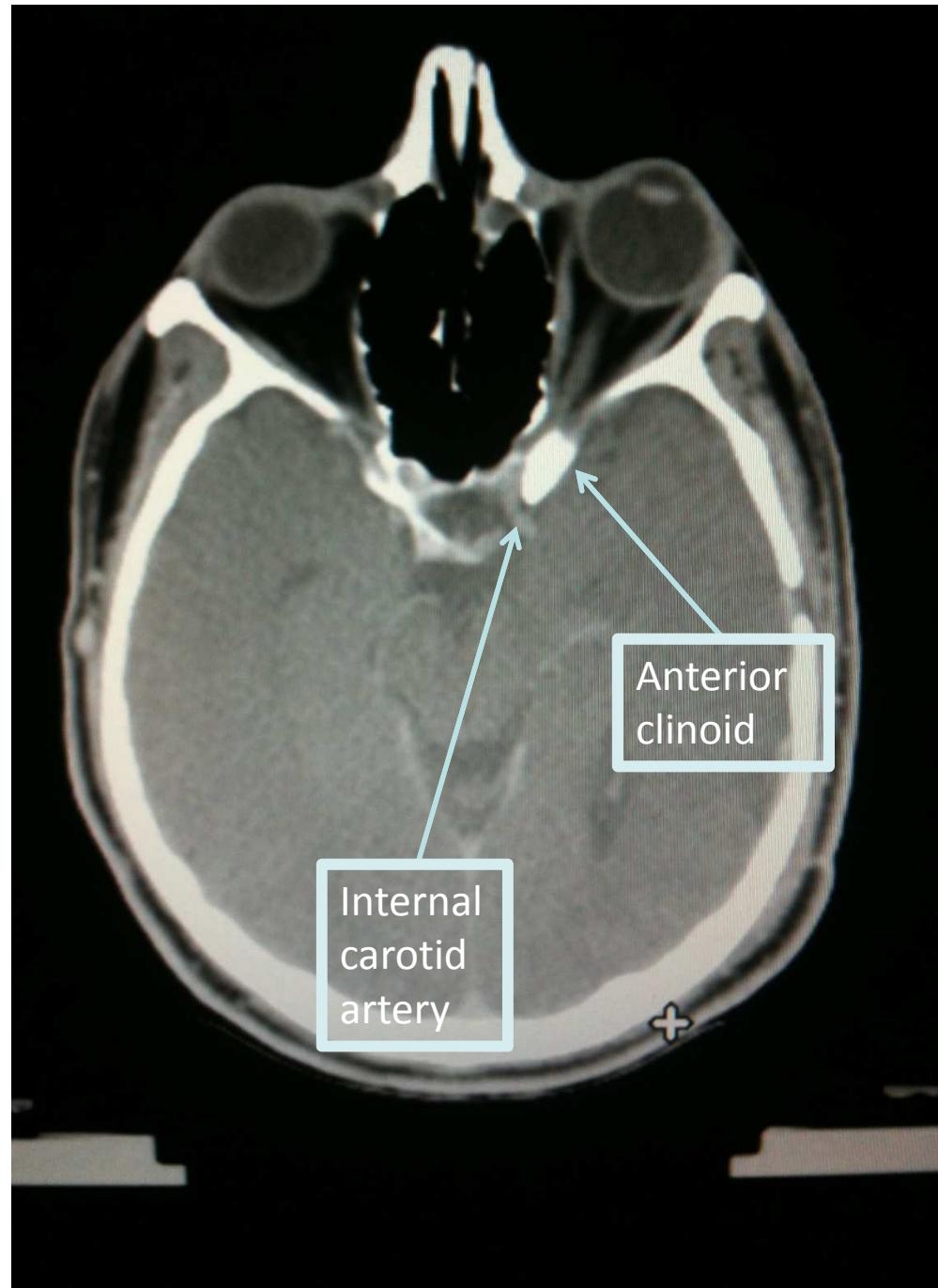
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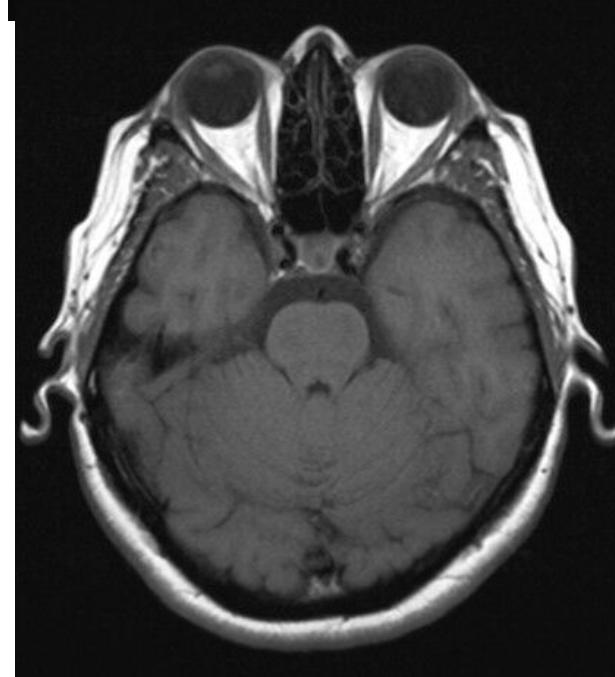
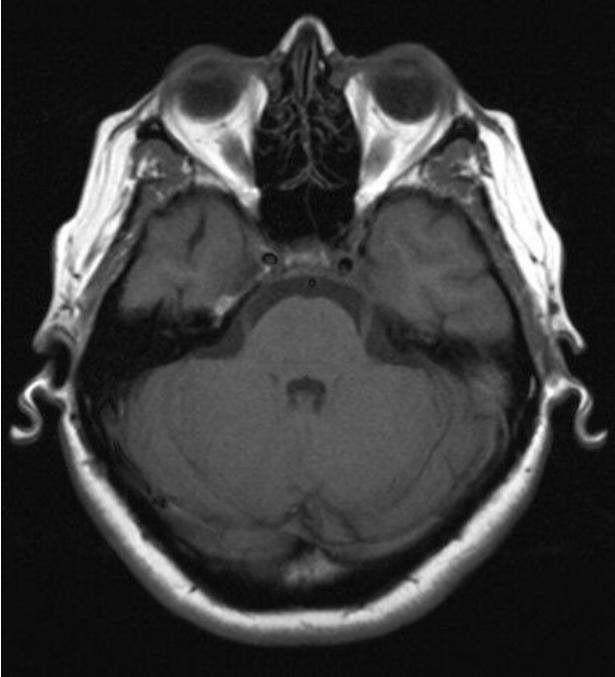
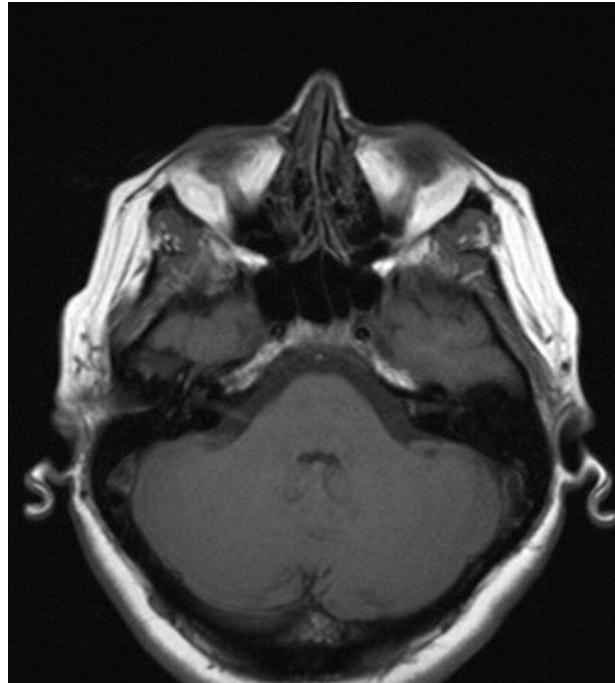
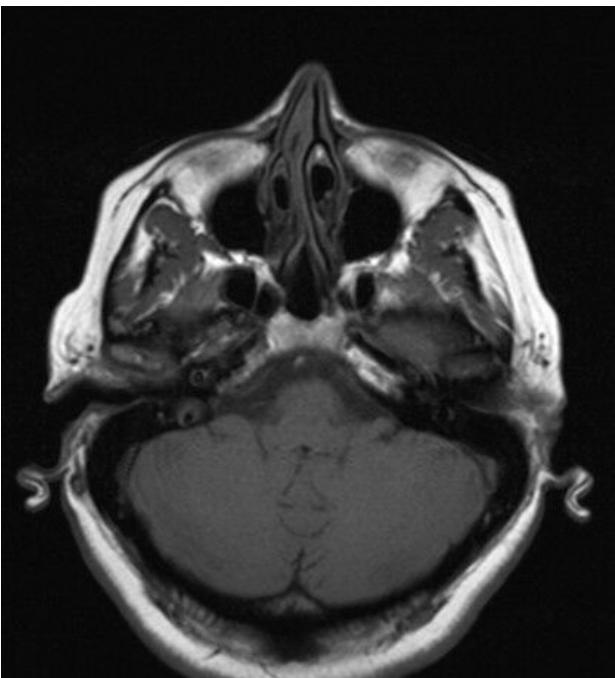
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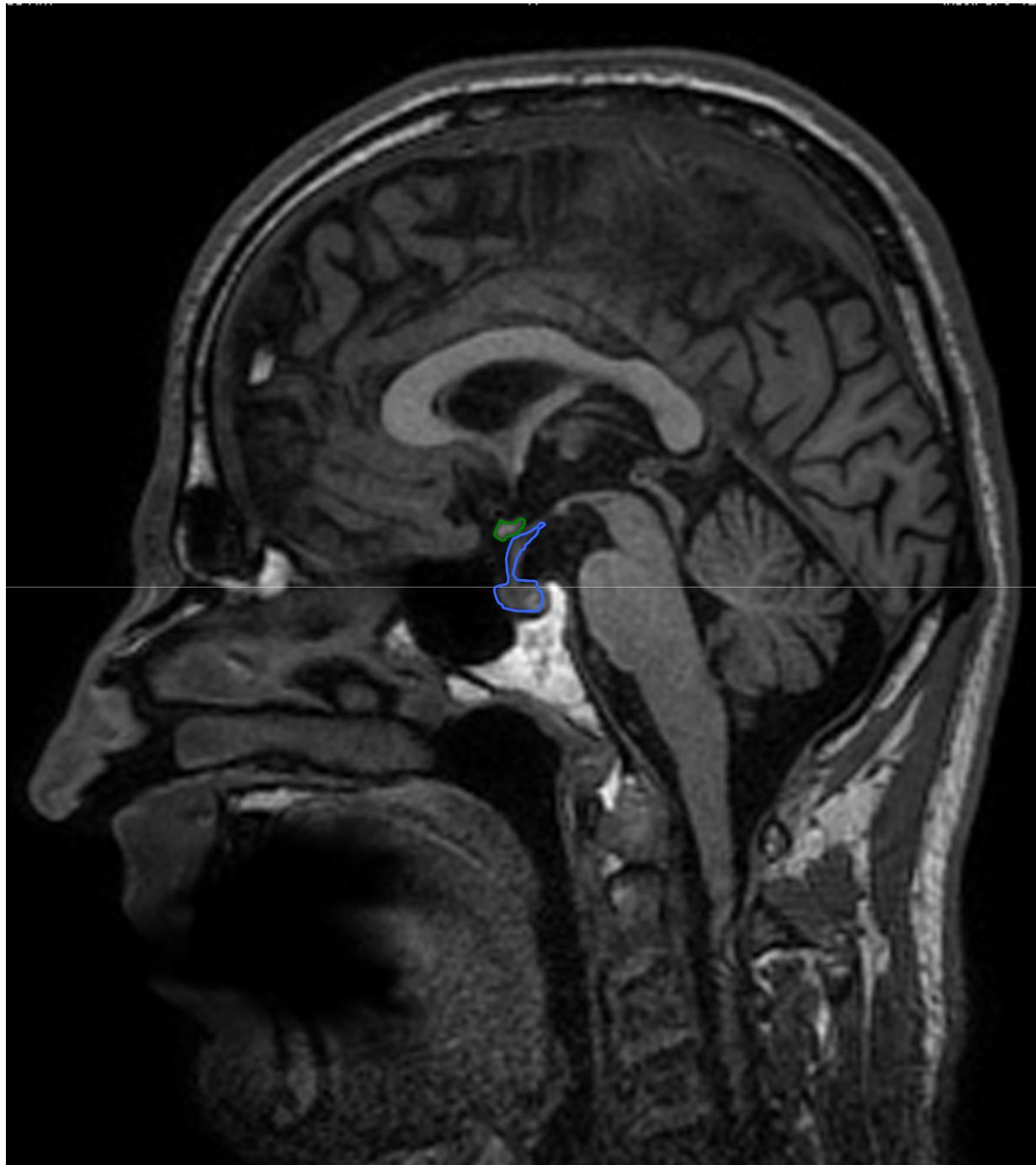


Carotid artery









Pituitary gland	Primary criteria		Secondary criteria	
Children	$D_{\max} < 42 \text{ Gy}$	<i>Launghon, JCO 2008</i>	.	
Adults	$D_{\max} < 30 \text{ Gy}$	<i>Suzuki, JJCO 2003</i>	.	
	$D_{\max} < 50 \text{ Gy}$	<i>Pai, IJROBP 2001</i>	.	
	$D_{\max} < 60 \text{ Gy}$	<i>Lee, R&O 2008</i>	$D_{\max} < 65$	<i>Lee, R&O 2008</i>

Dose < 30 Gy Pituitary impairment in 33%

Dose 30-50 Gy Pituitary impairment in 50%

Haberer 2010, Cancer Radiotherapie

TD 5/5 20 Gy; TD 50/5 35 Gy

Cochlea



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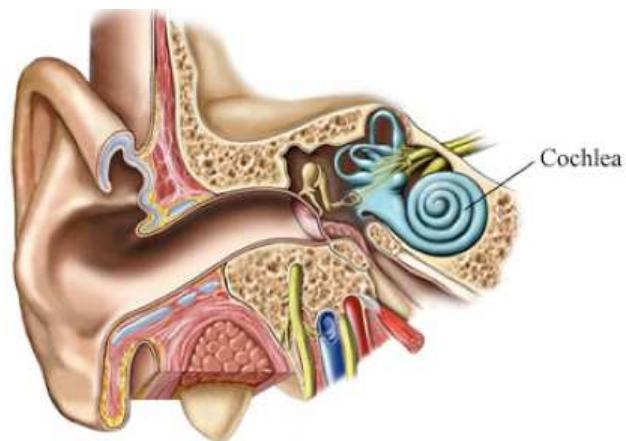
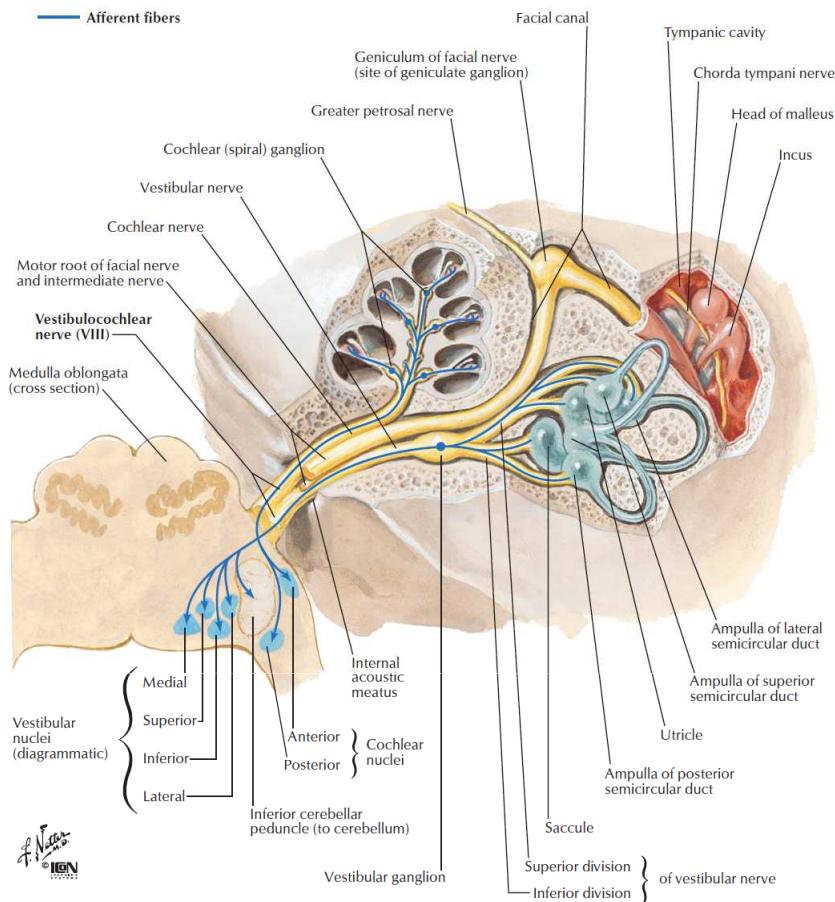
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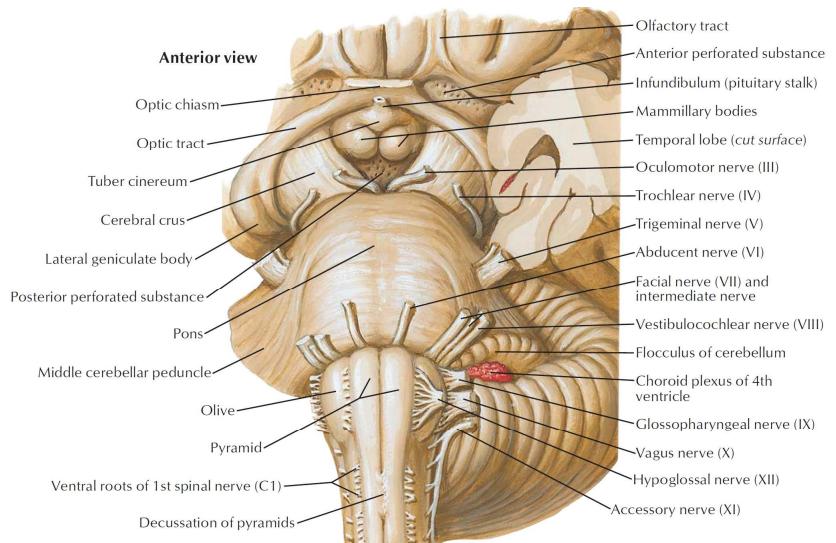
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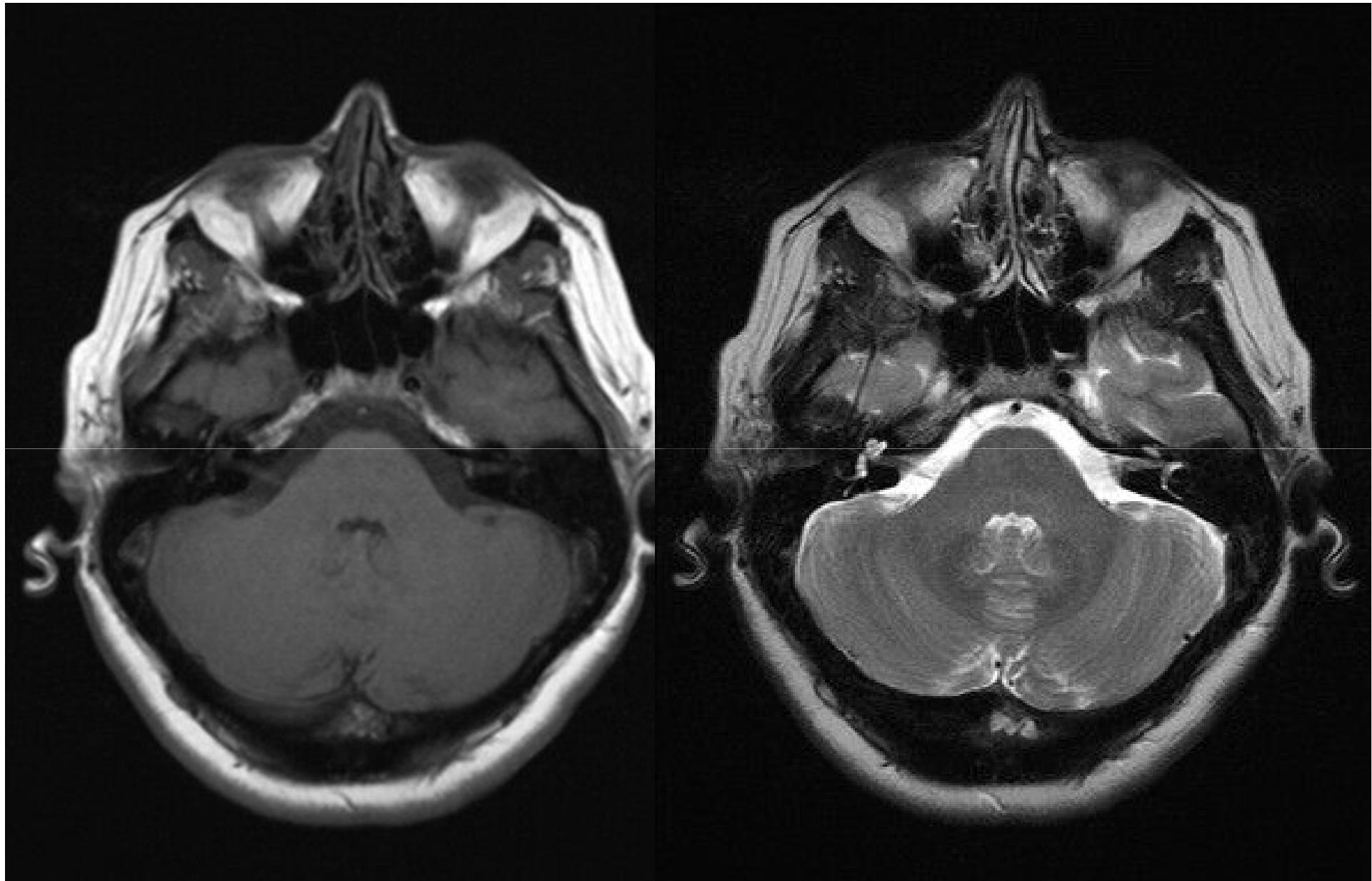
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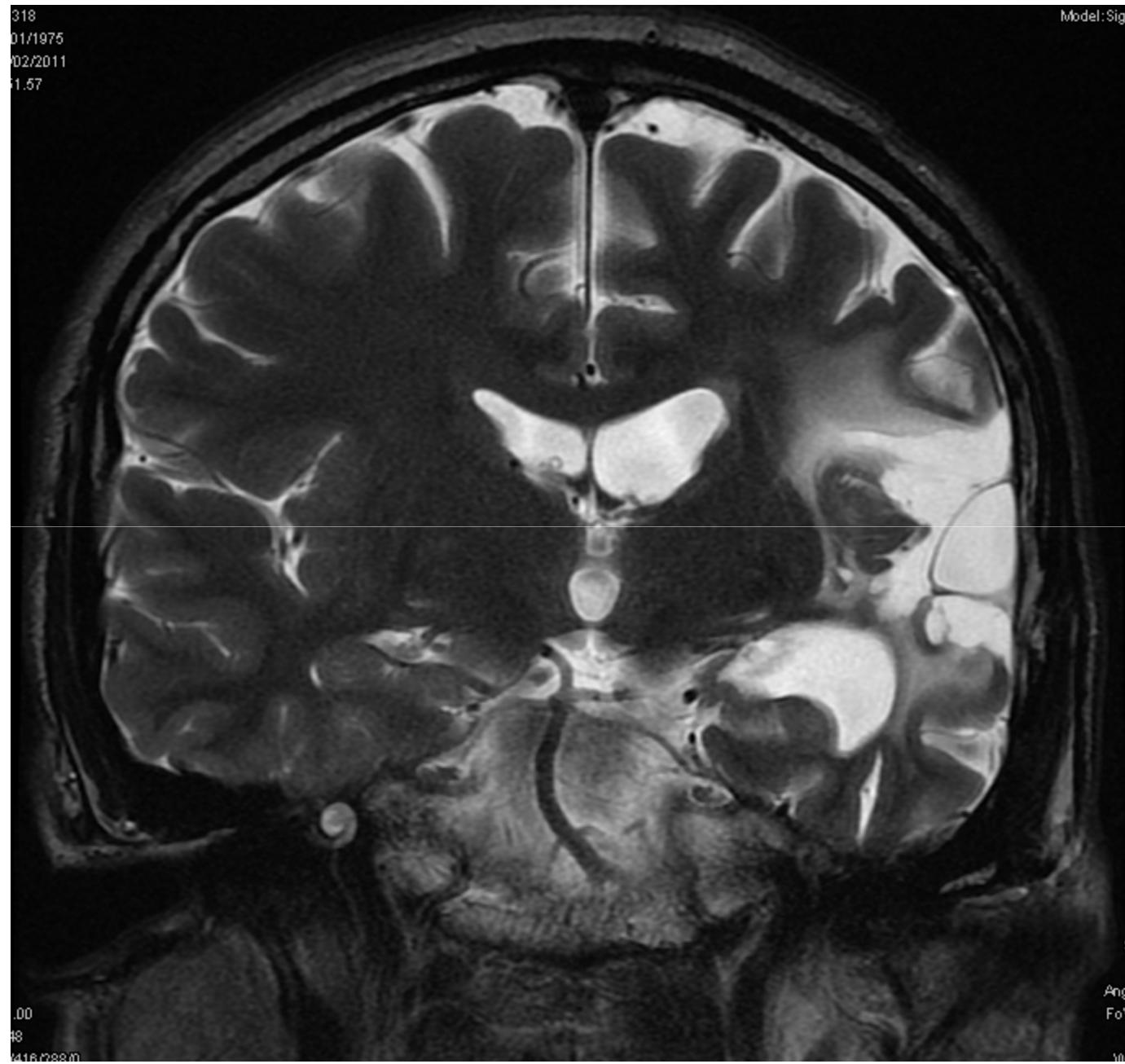




Volume 0.13-0.91 ml

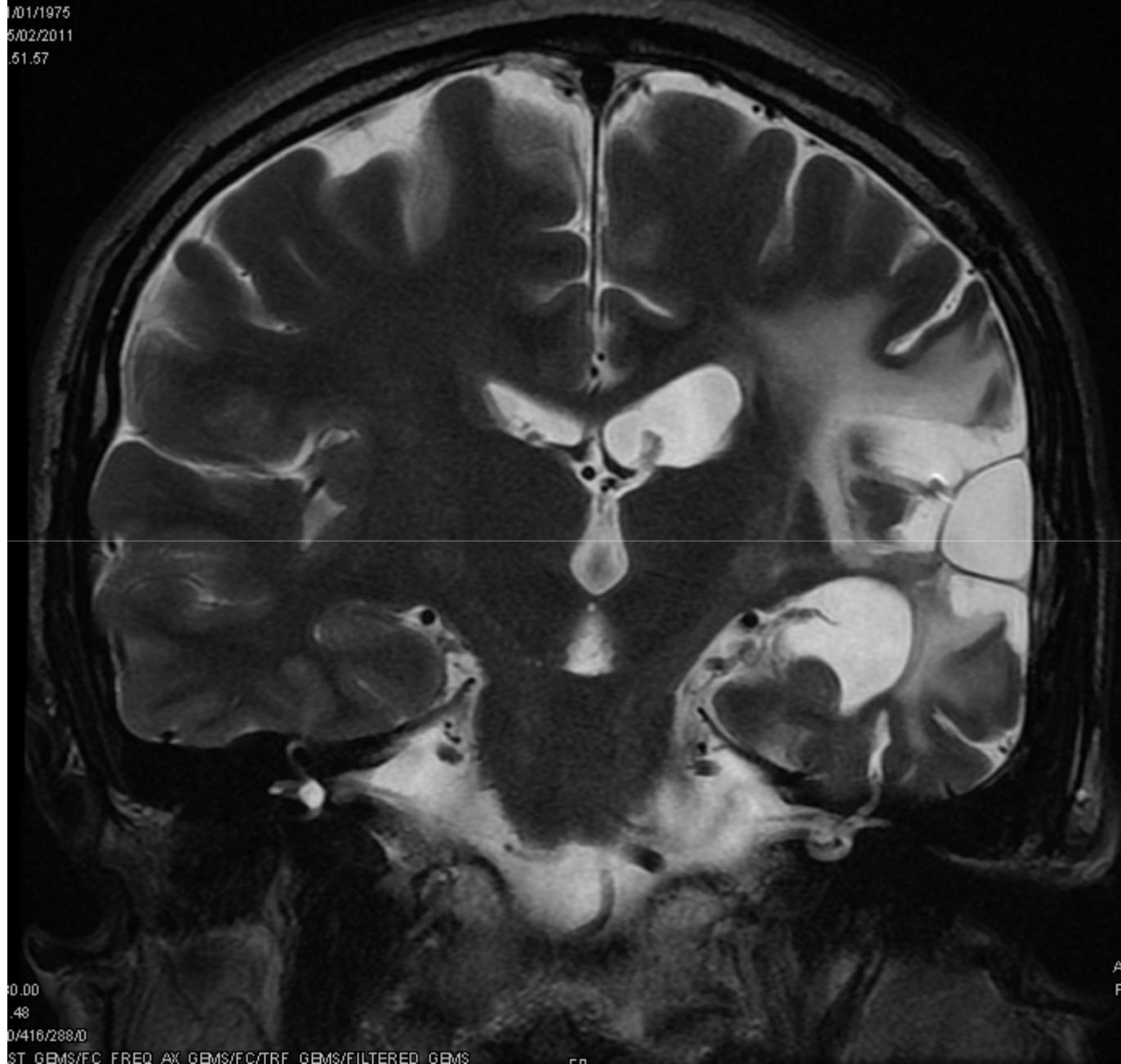






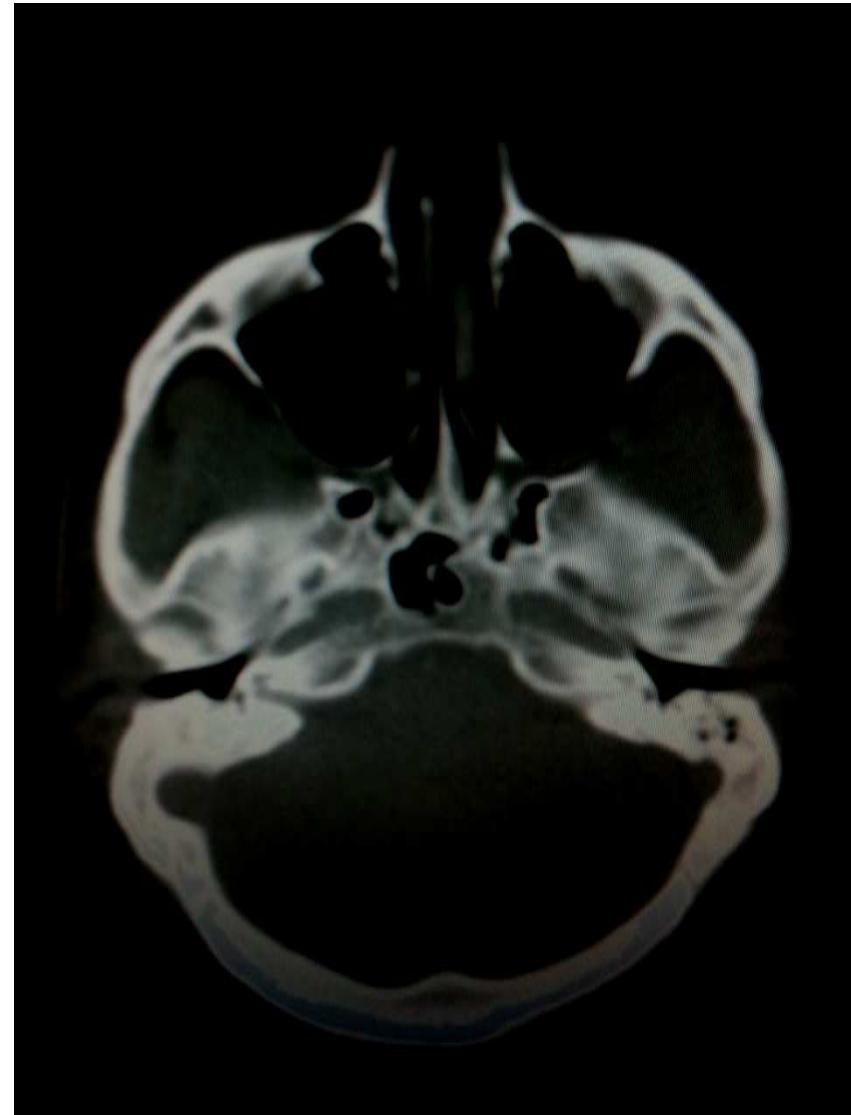
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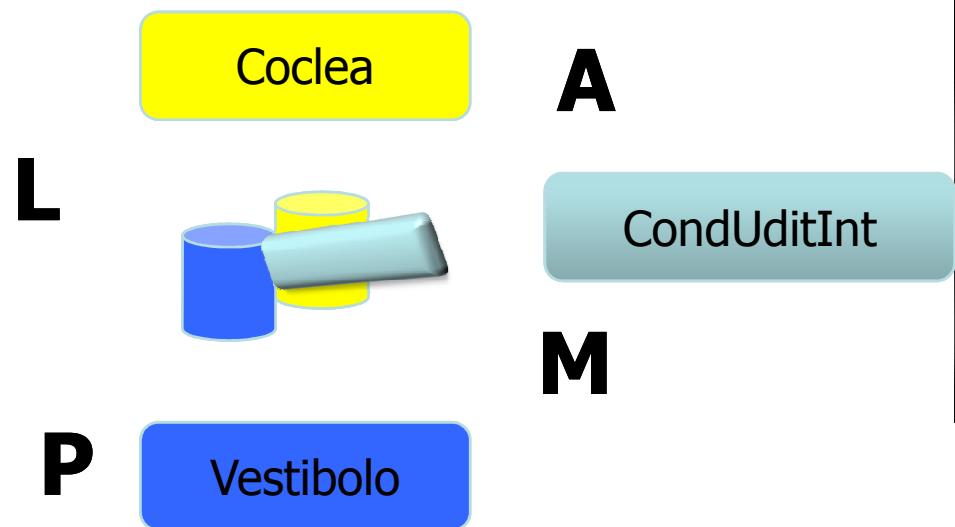
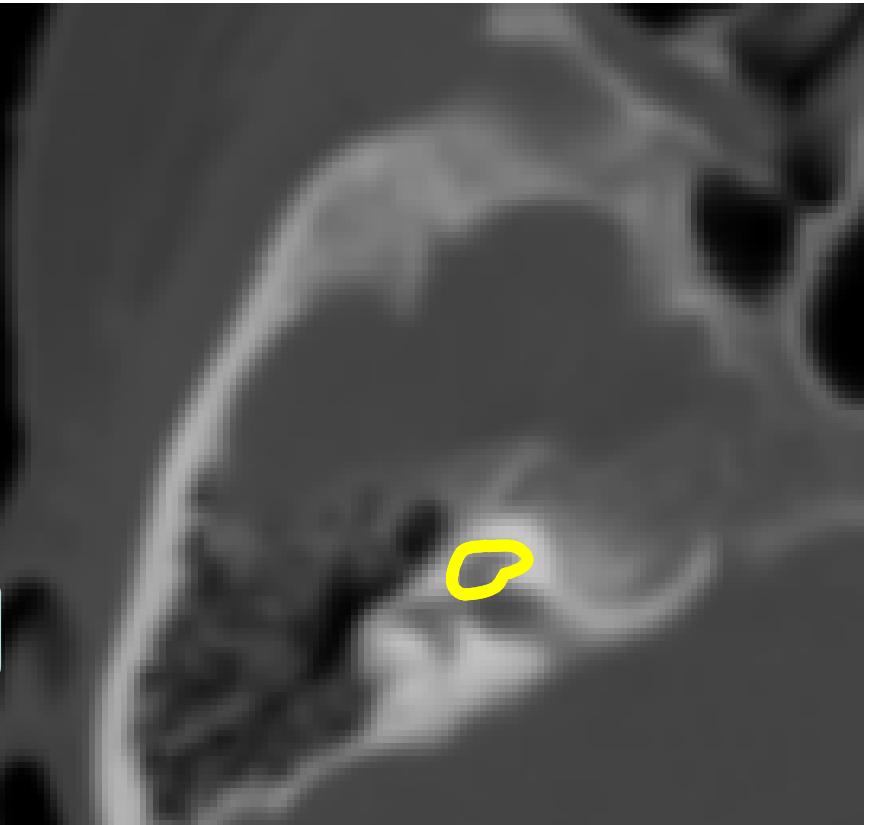
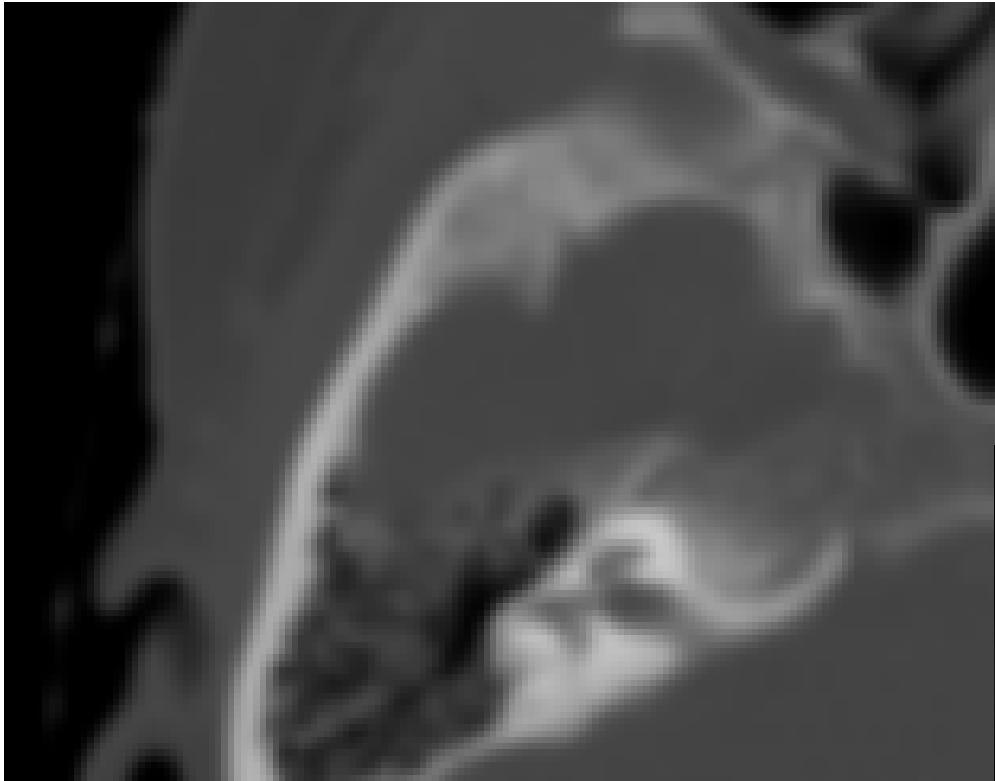
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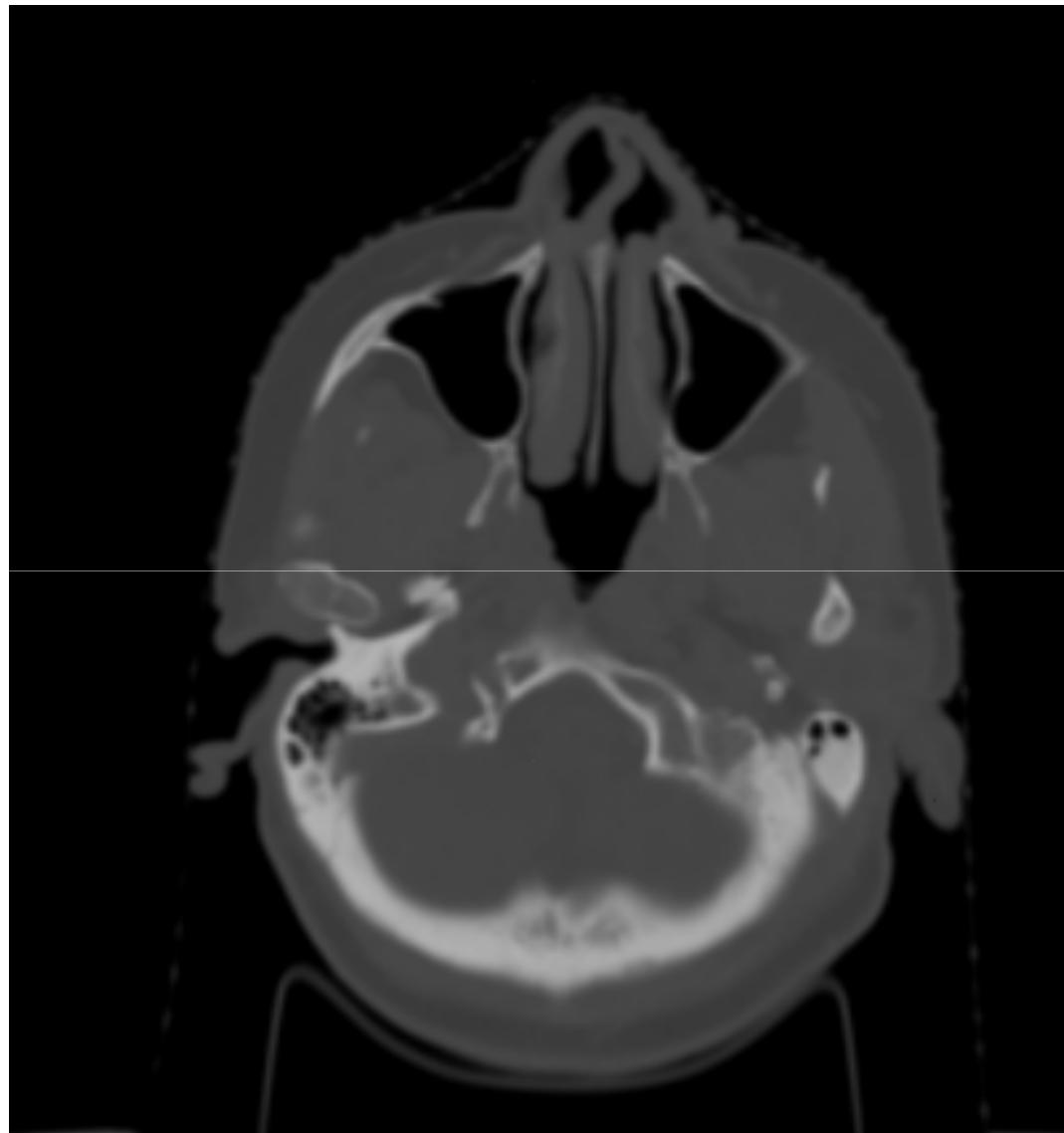
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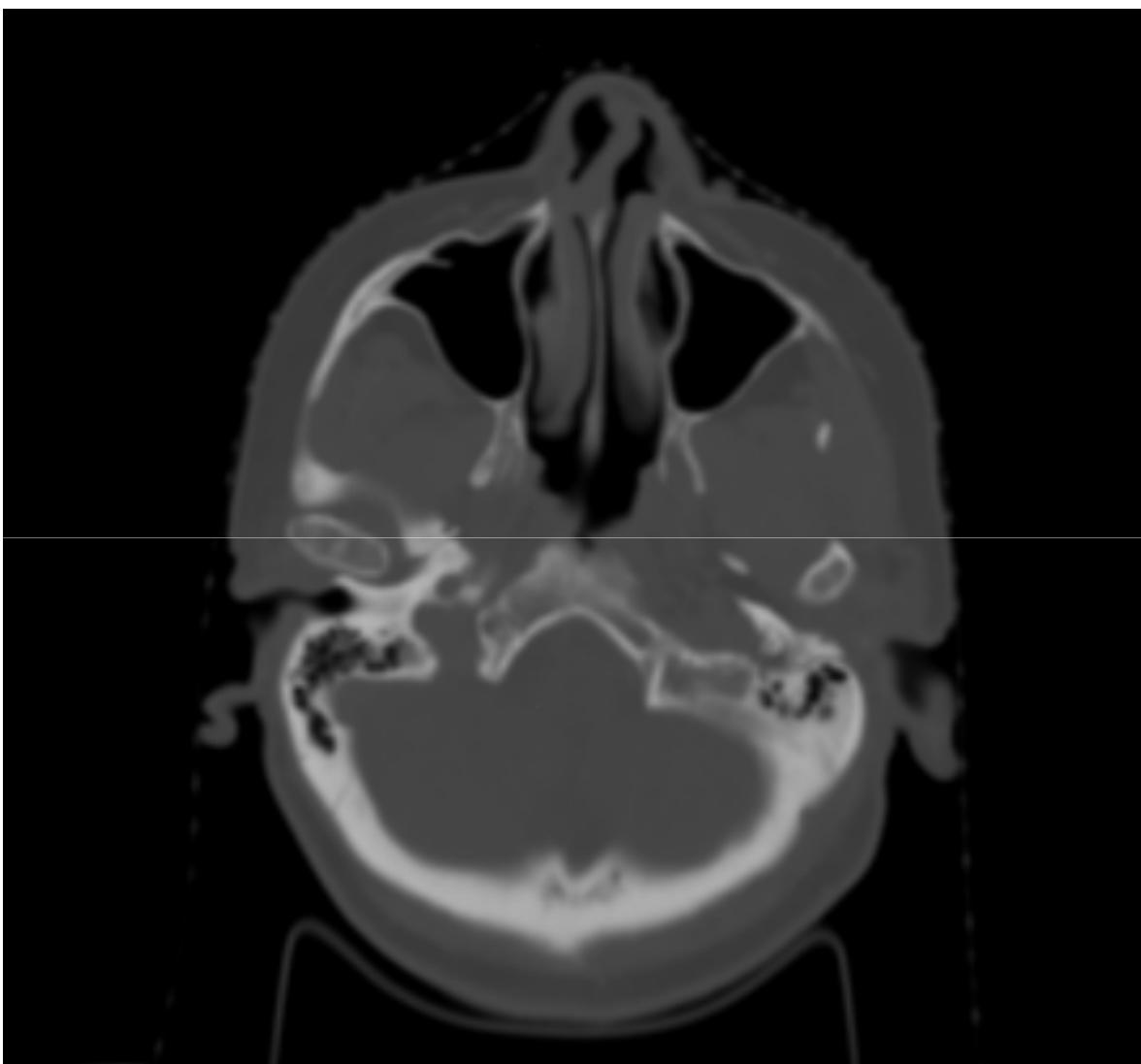


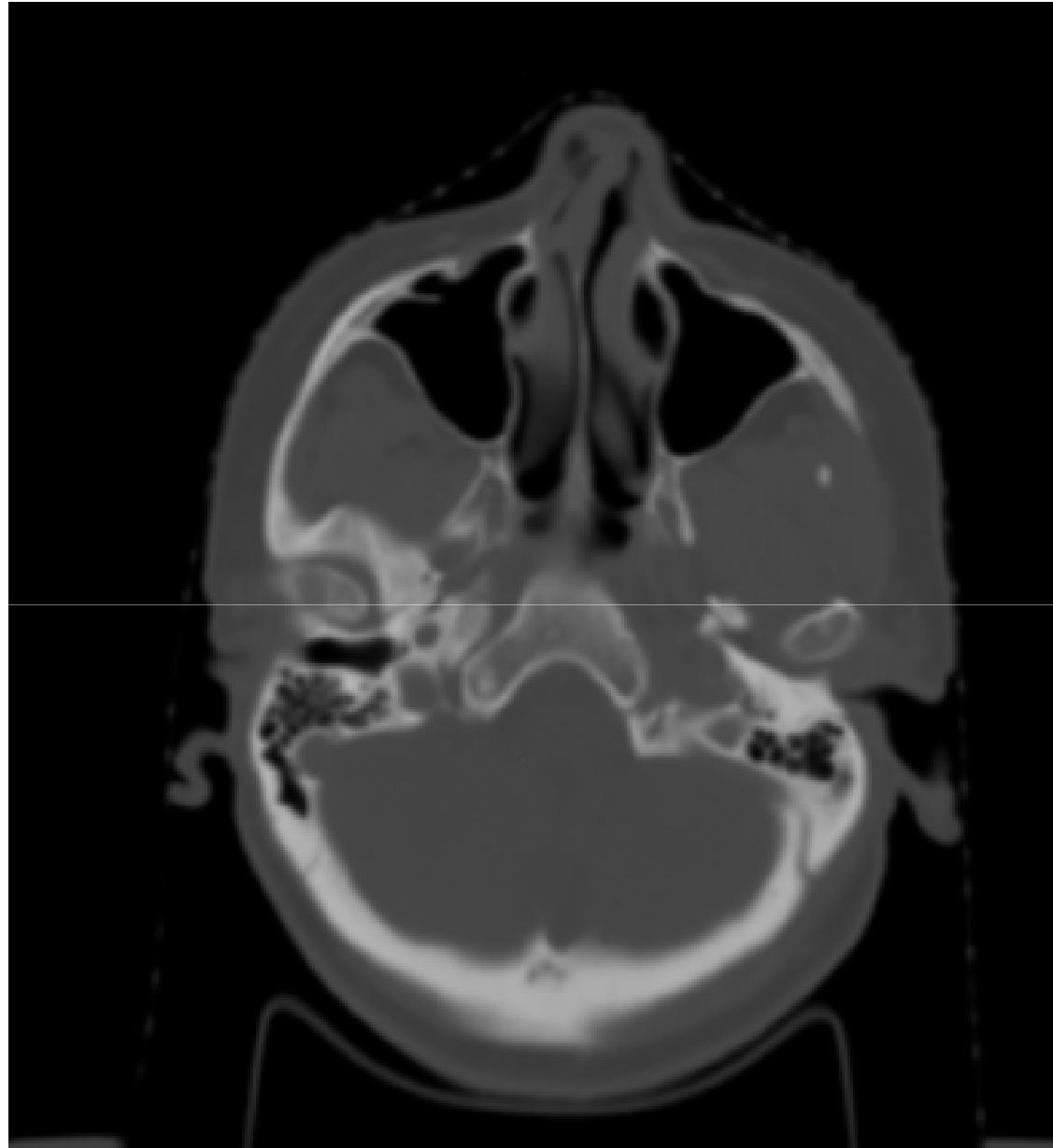
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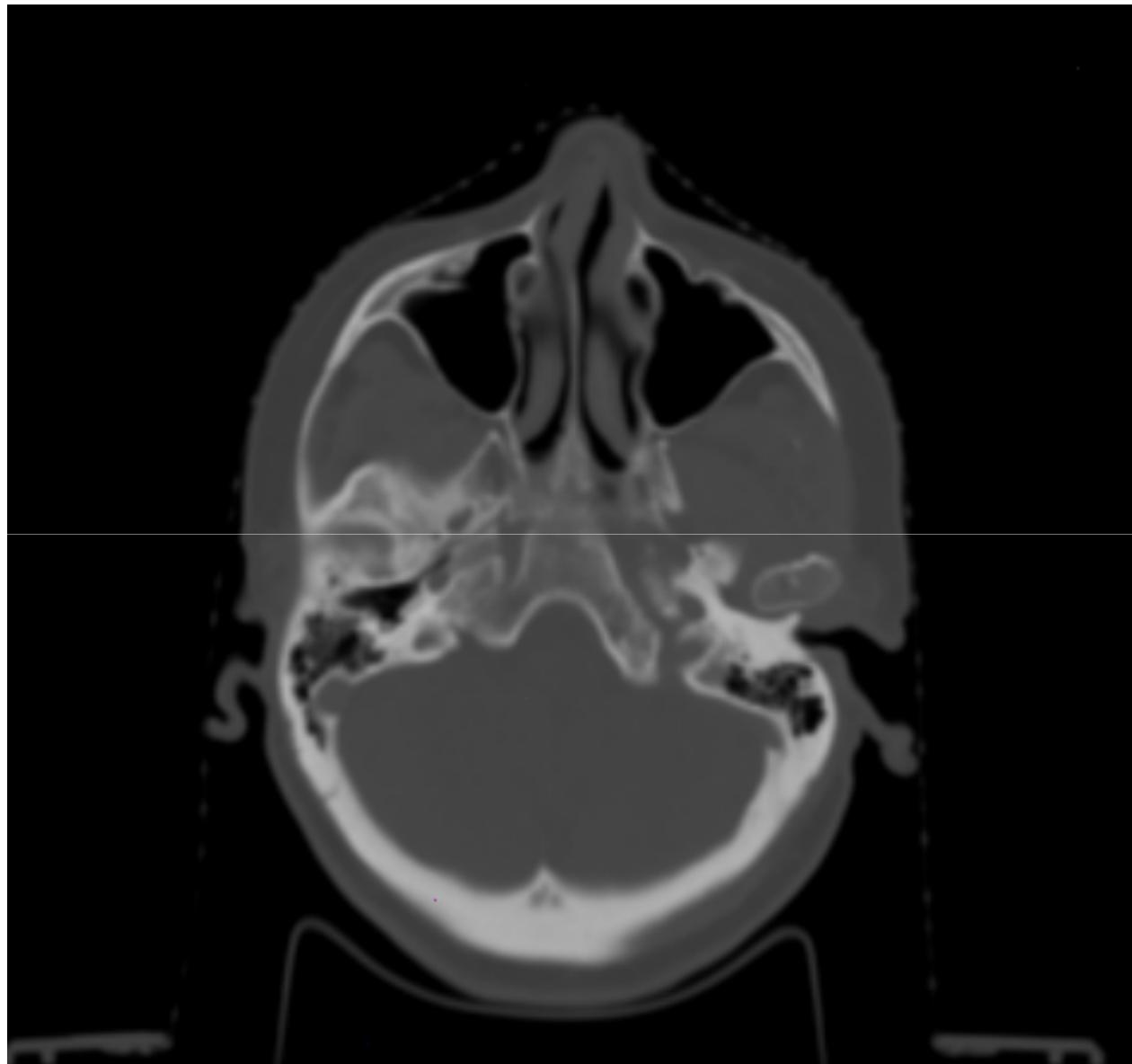
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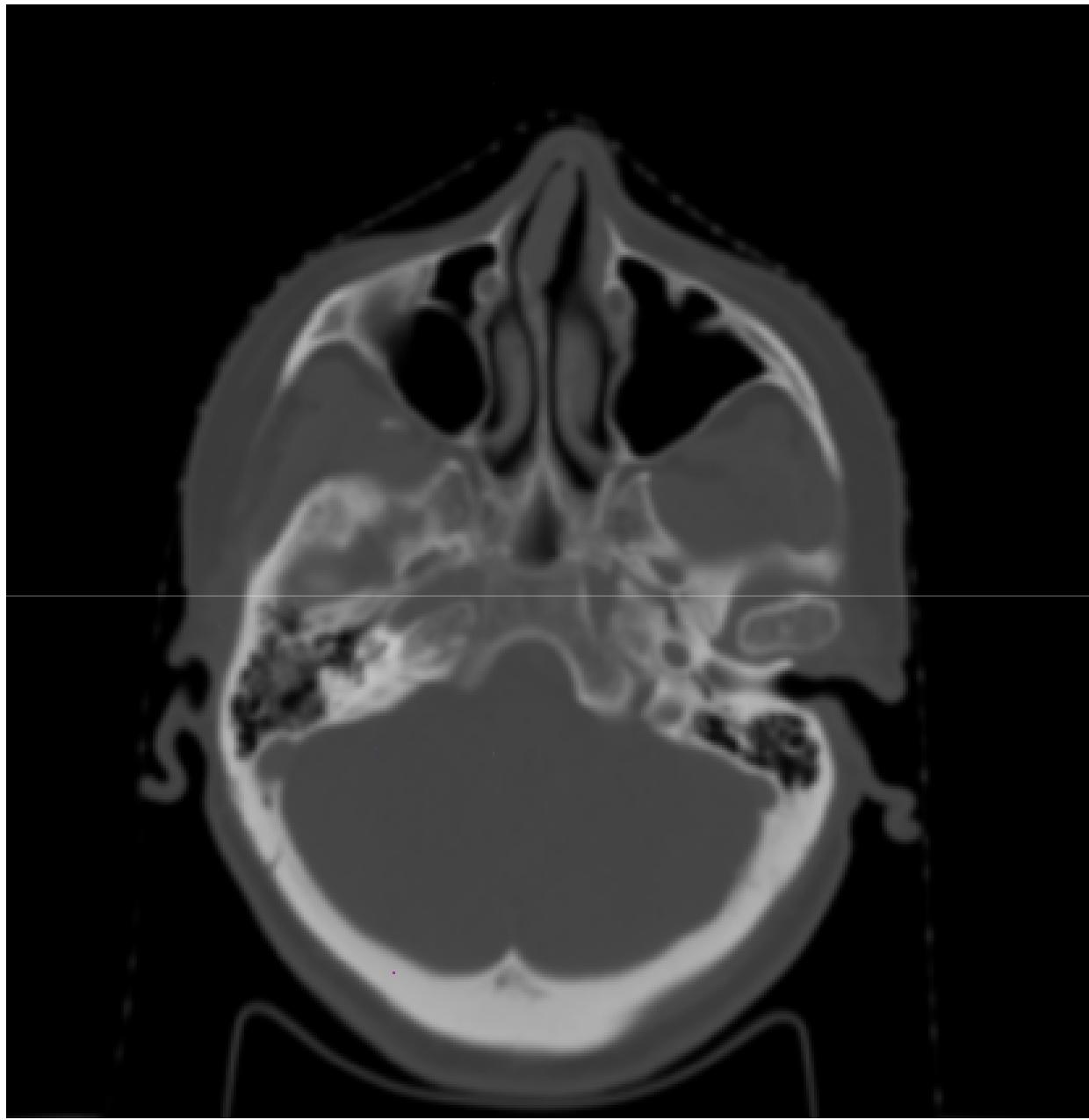


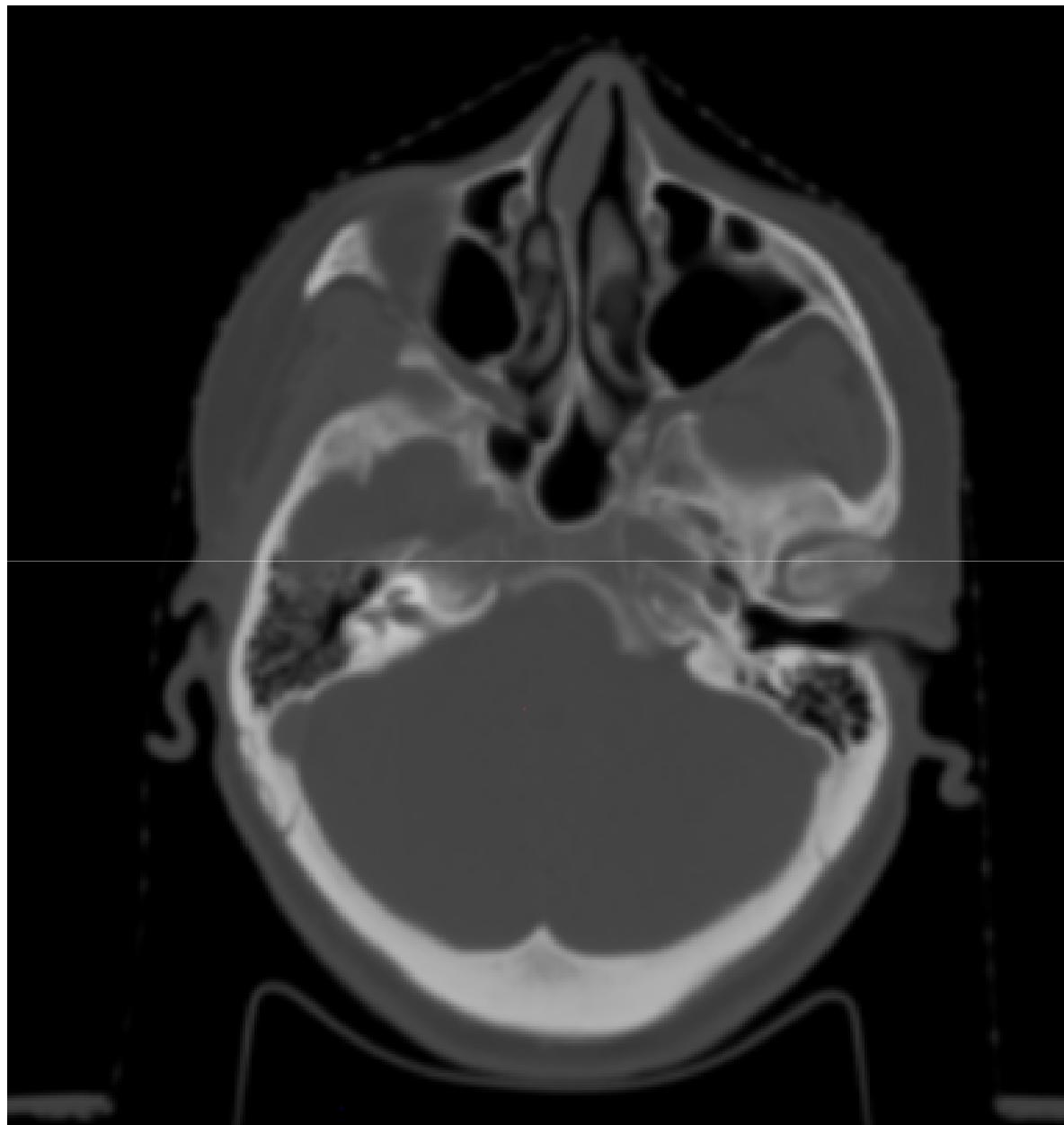


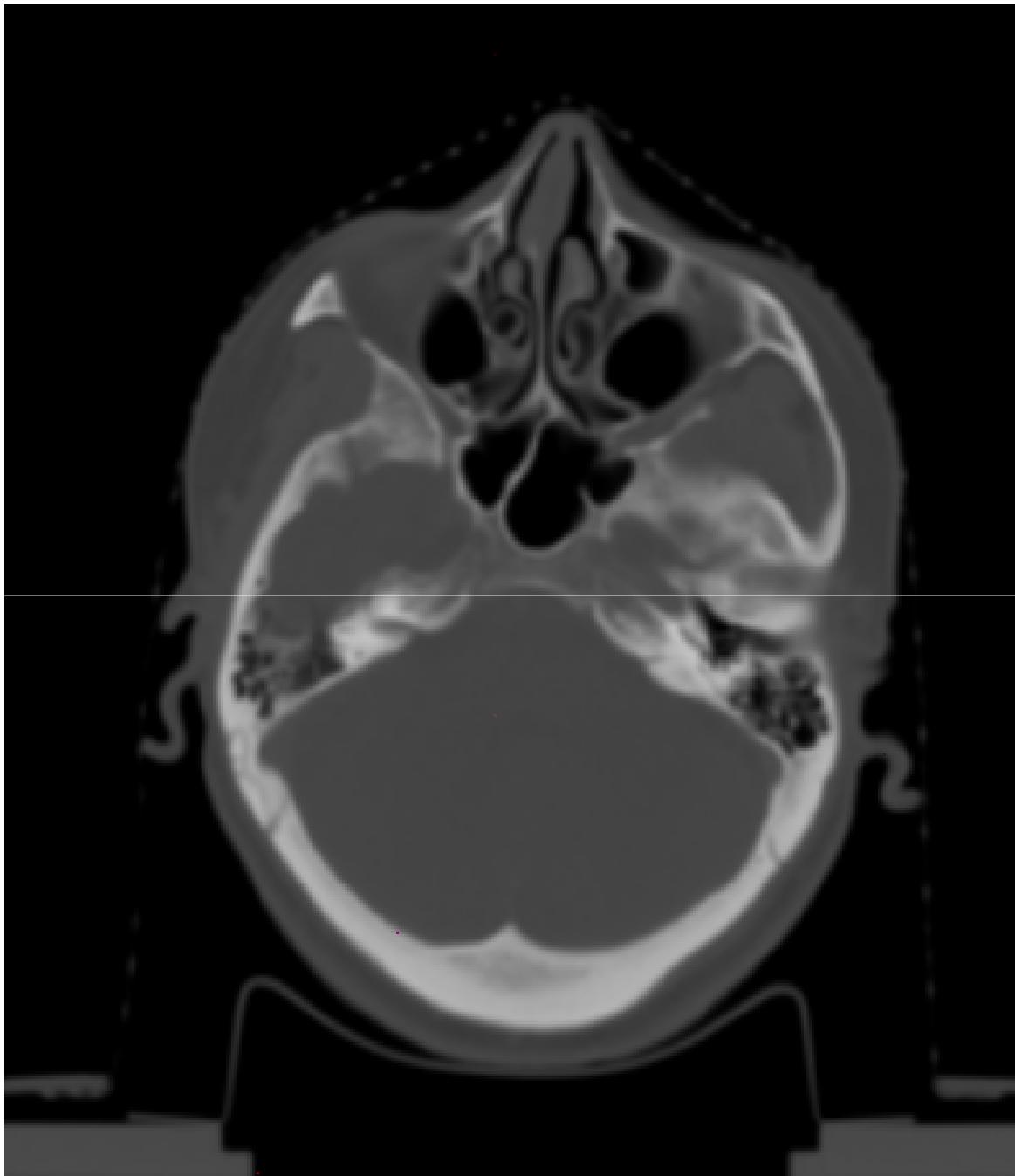


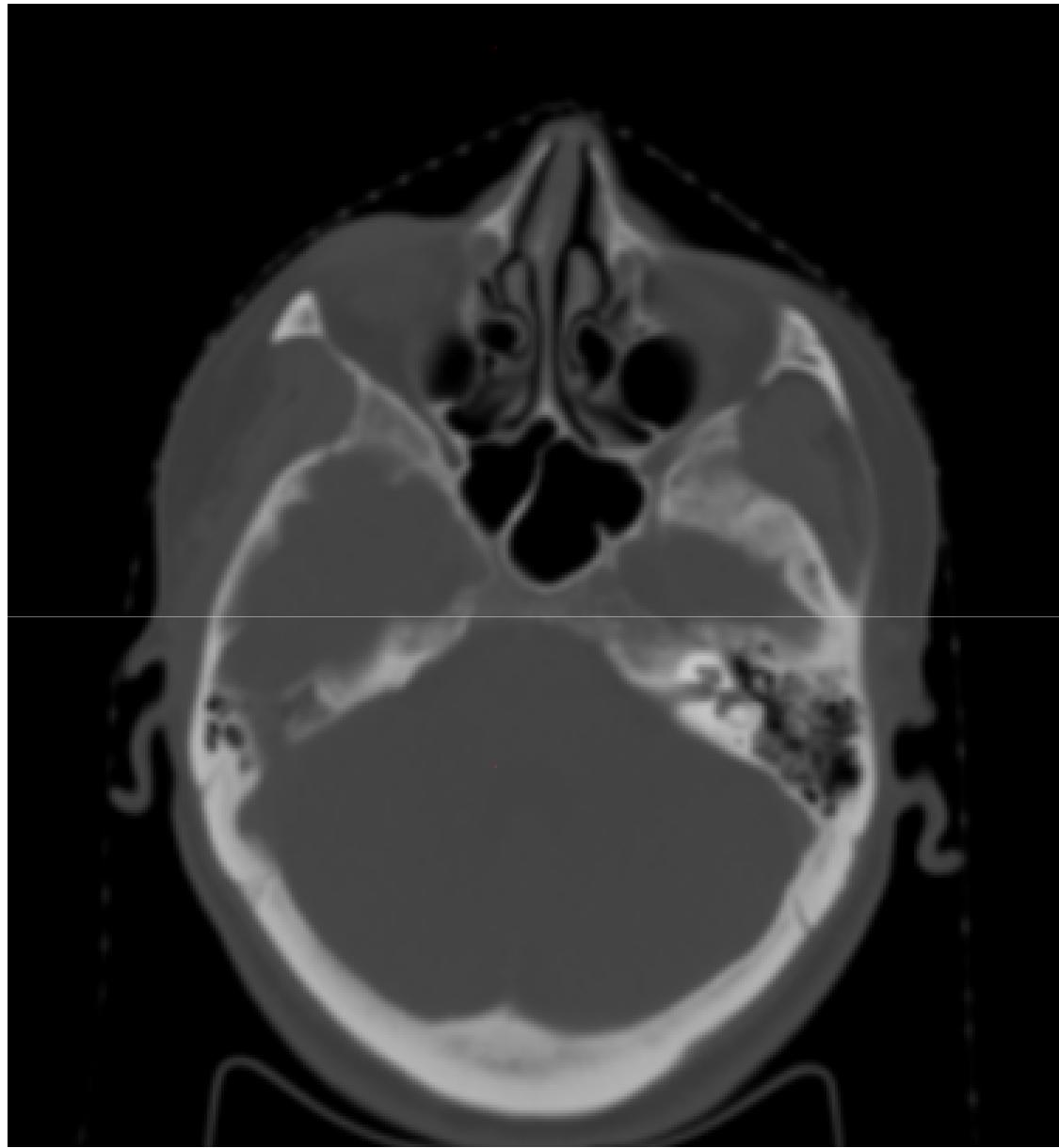


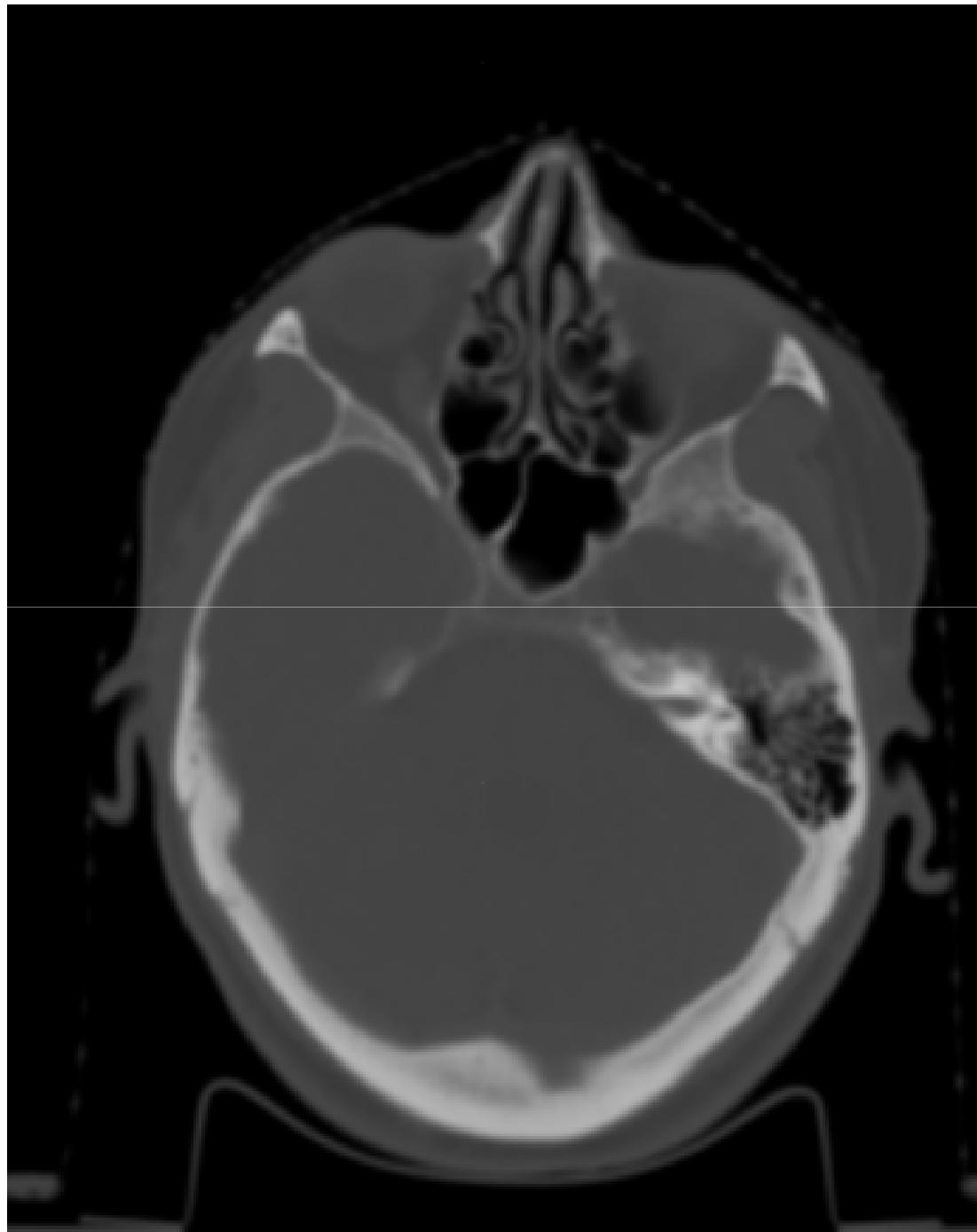


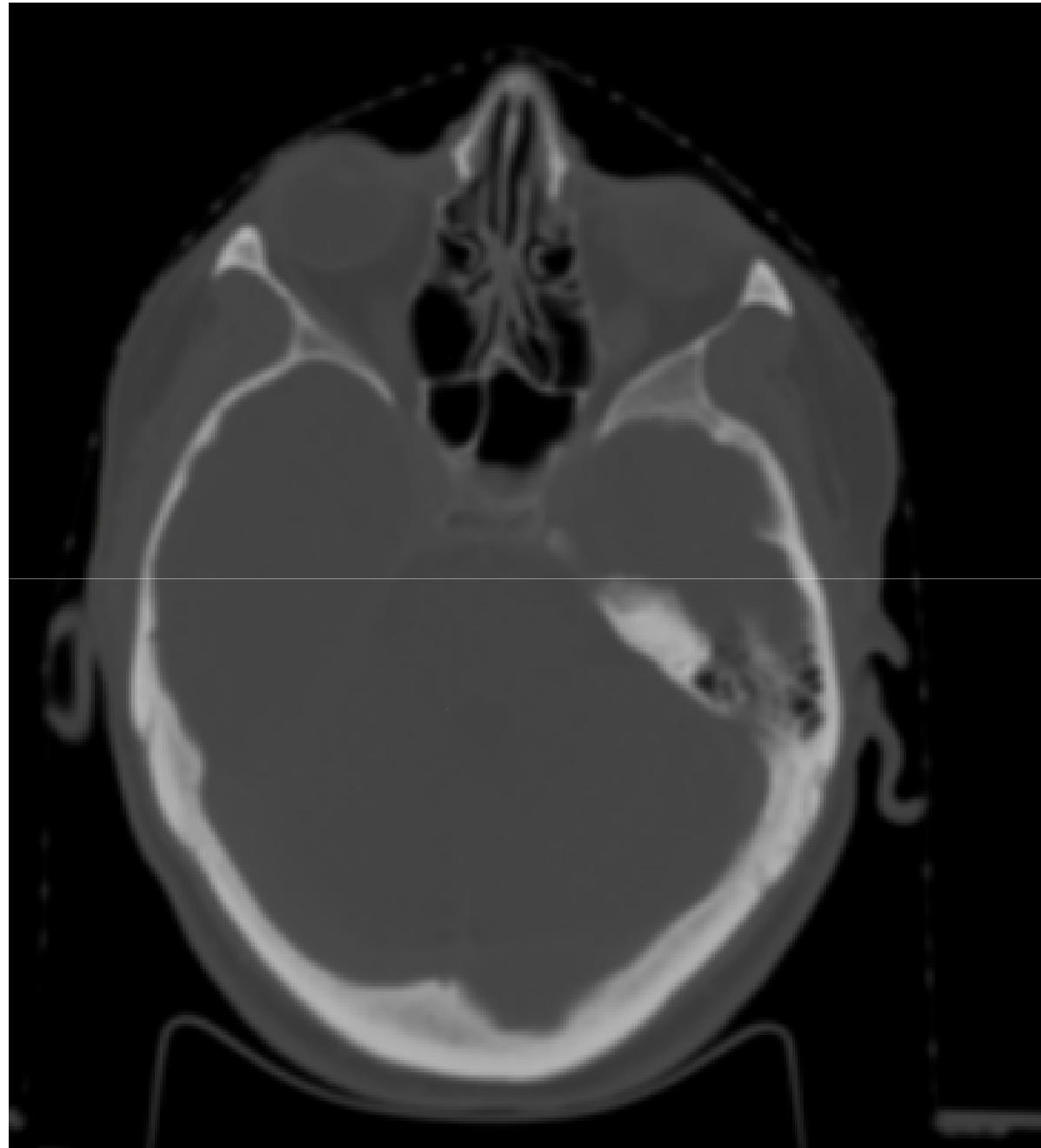












Cochlea		
Children	$D_{mean} < 35$	<i>Merchant, Child NervSyst 2009</i>
	$D_{mean} < 35$	<i>Hua, IJROBP 2008</i>
	$D_{mean} < 37-45 \text{ Gy}$	<i>Paulino, IJROBP 2010</i>
Adults	$D_{mean} < 50$	<i>Lee, R&O 2008</i>
	$V_{55} < 5\%$	<i>Lee, Radiation Oncology: an evidence based approach (Springer 2008)</i>

QUANTEC: ORGAN-SPECIFIC PAPER

Central Nervous System: Ear

RADIATION THERAPY AND HEARING LOSS

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 CHARLIE C. PAN, M.D.,§ JOHN C. FLICKINGER, M.D.,§ PATRICK ANTONELLI, M.D.,||
 AND WILLIAM M. MENDENHALL, M.D.*

From the *Departments of Radiation Oncology and †Otolaryngology, University of Florida College of Medicine, Gainesville, Florida;
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 University of Michigan; and §Department of Radiation Oncology, University of Pittsburgh Medical Center

A review of literature on the development of sensorineural hearing loss after high-dose radiation therapy for head-and-neck tumors and stereotactic radiosurgery or fractionated stereotactic radiotherapy for the treatment of vestibular schwannoma is presented. Because of the small volume of the cochlea a dose-volume analysis is not feasible. Instead, the current literature on the effect of the mean dose received by the cochlea and other treatment- and patient-related factors on outcome are evaluated. Based on the data, a specific threshold dose to cochlea for sensorineural hearing loss cannot be determined; therefore, dose-prescription limits are suggested. A standard for evaluating radiation therapy-associated ototoxicity as well as a detailed approach for scoring toxicity is presented. © 2010 Elsevier Inc.



$D_{mean} < 45 \text{ Gy}, 48 \text{ Gy}, 50 \text{ Gy}$

Grazie per l'attenzione

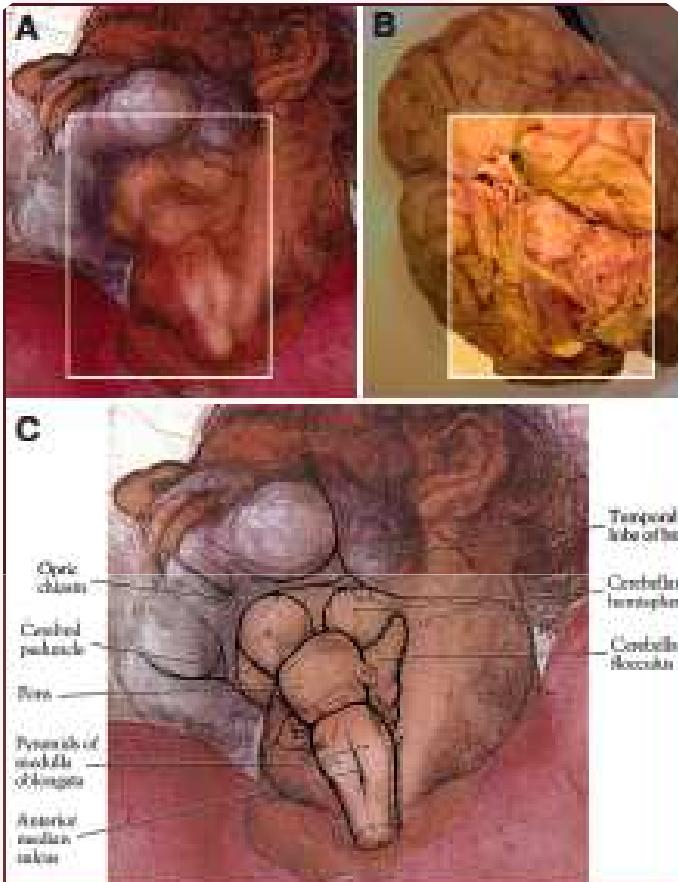


FIGURE 4. Comparative views of bimacule landmarks in the Separation of Light From Darkness. *Brachium anterior* in the highlighted box by Michelangeli (A) is compared with a similar area outlined in a cadaver dissection (B). C, the artery showing the specific red-stain structures that correspond to the unusual features in Cast's neck as depicted by Michelangeli.