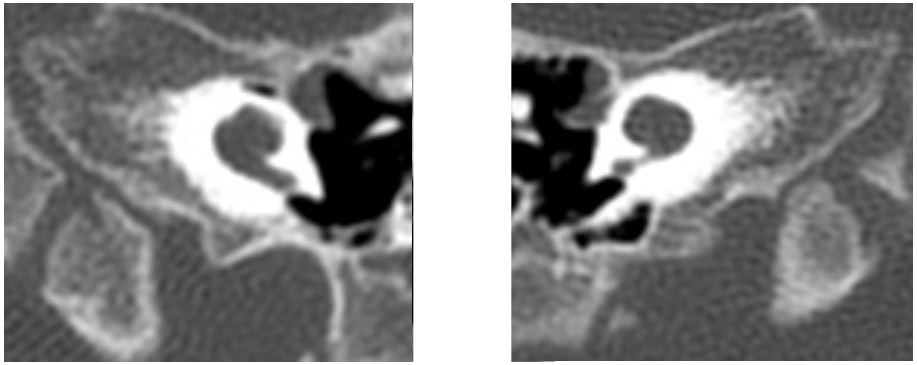
Cochleovestibular Anomalies

SickKids
THE HOSPITAL FOR SICK CHILDREN
COCHLEAR IMPLANT PROGRAM

- 35% have anomalous cochleovestibular anatomy



incomplete partition I

Cochleovestibular Anomalies	Number
common cavity	8
hypoplastic cochlea	16
incomplete partition	42
vestibular aqueduct enlargement (isolated anomaly)	37

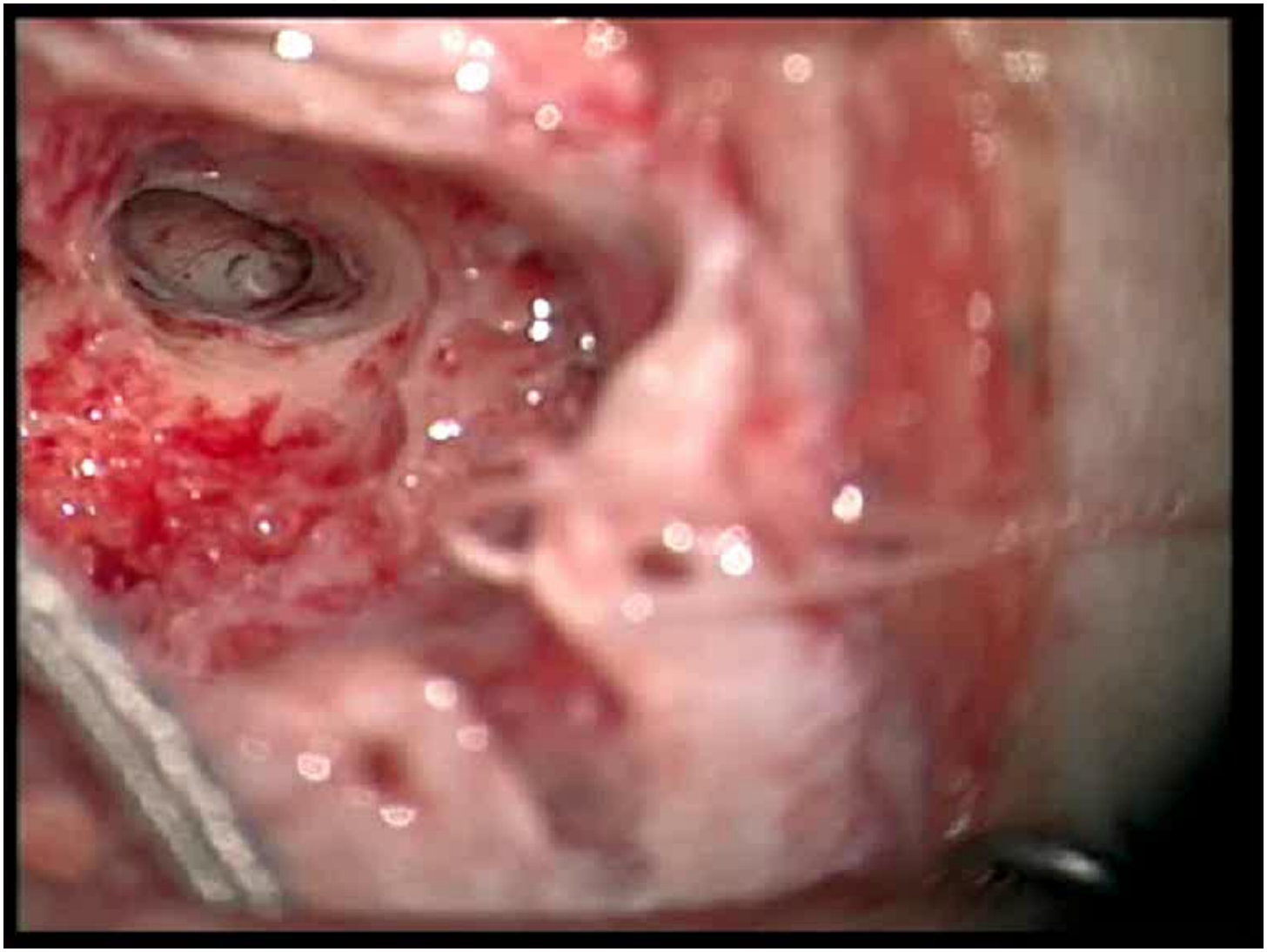
Intraoperative findings and anomalies of the middle ear encountered in this series

Complication	**Number**
perilymph/CSF leak	7
requiring CLCFD[+]	2 } 3
wound Infection	1*
non-stimulation	2[†]
facial nerve weakness	0
Abnormal Middle Ear Anatomy	18
stapes abnormal only	4
nerve anteriorly displaced	14

[+]continuous lumbar cerebrospinal fluid drainage
*explanted temporarily/permanently
[†]one explanted

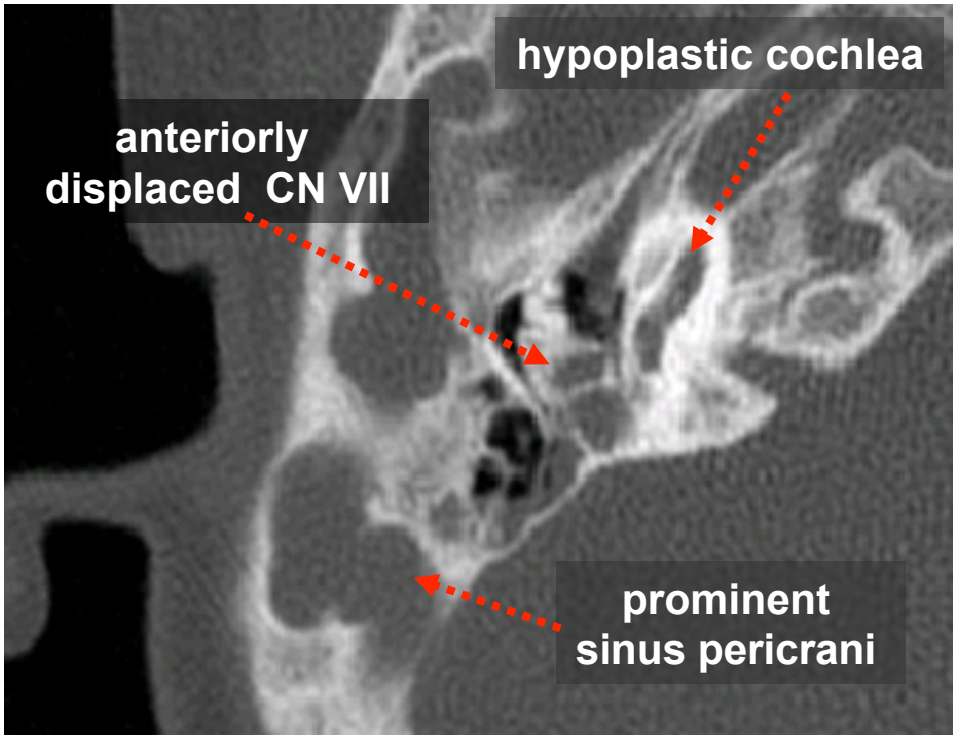
7 + 18 = 25/103 (24%)

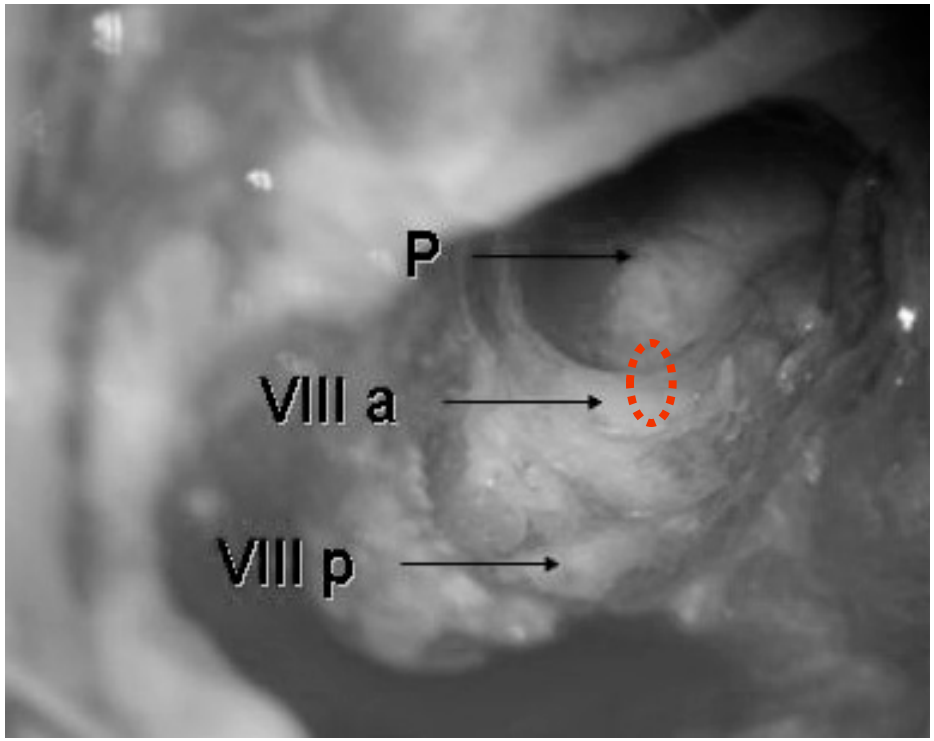
Gusher Majoris



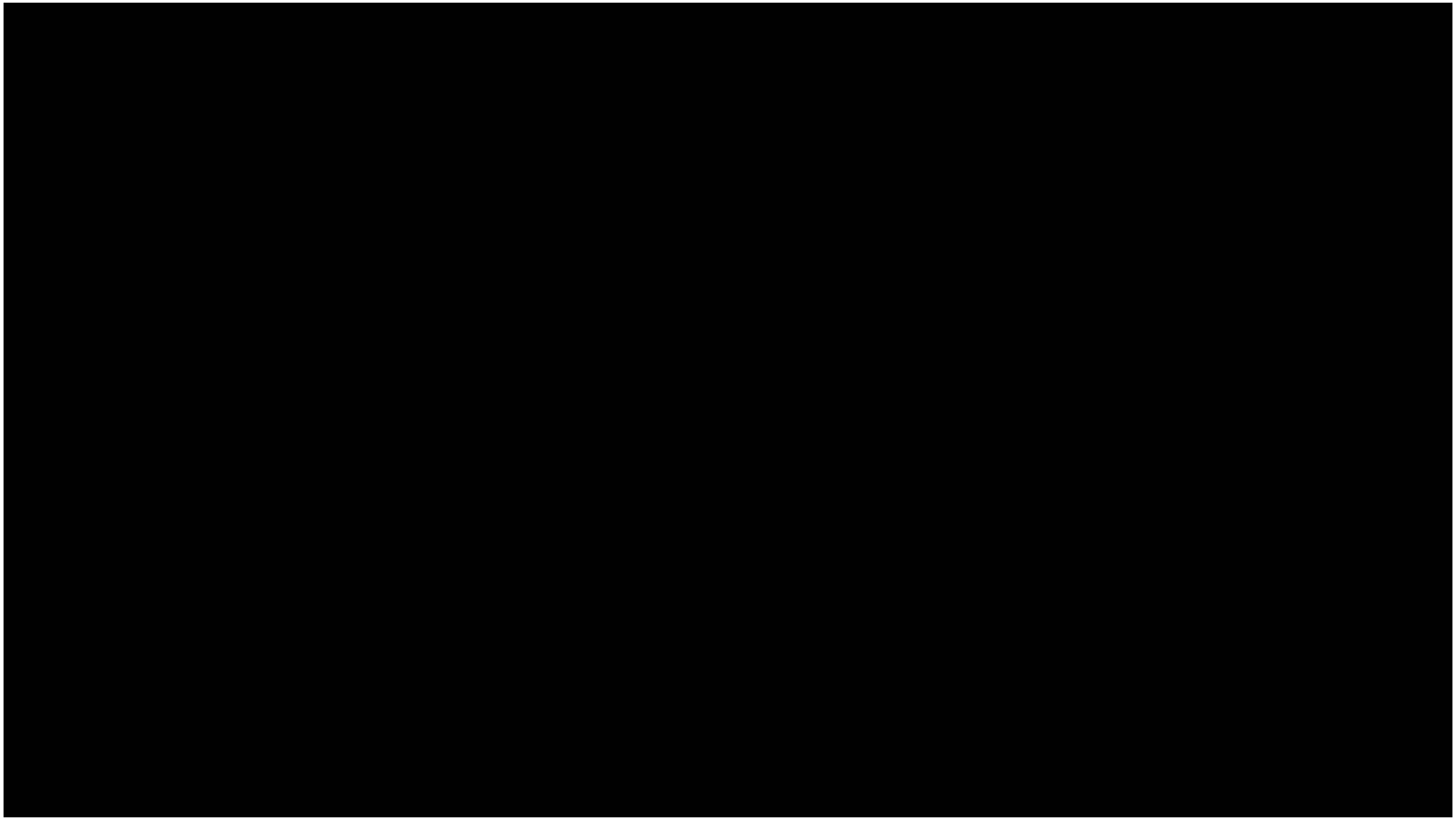
Problematic Anatomy

SickKids
THE HOSPITAL FOR SICK CHILDREN
COCHLEAR IMPLANT PROGRAM



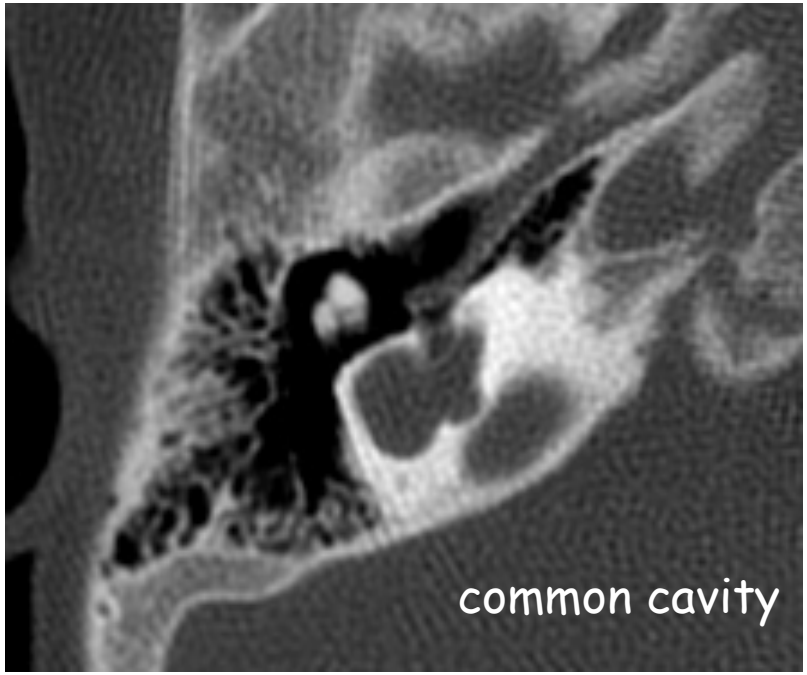


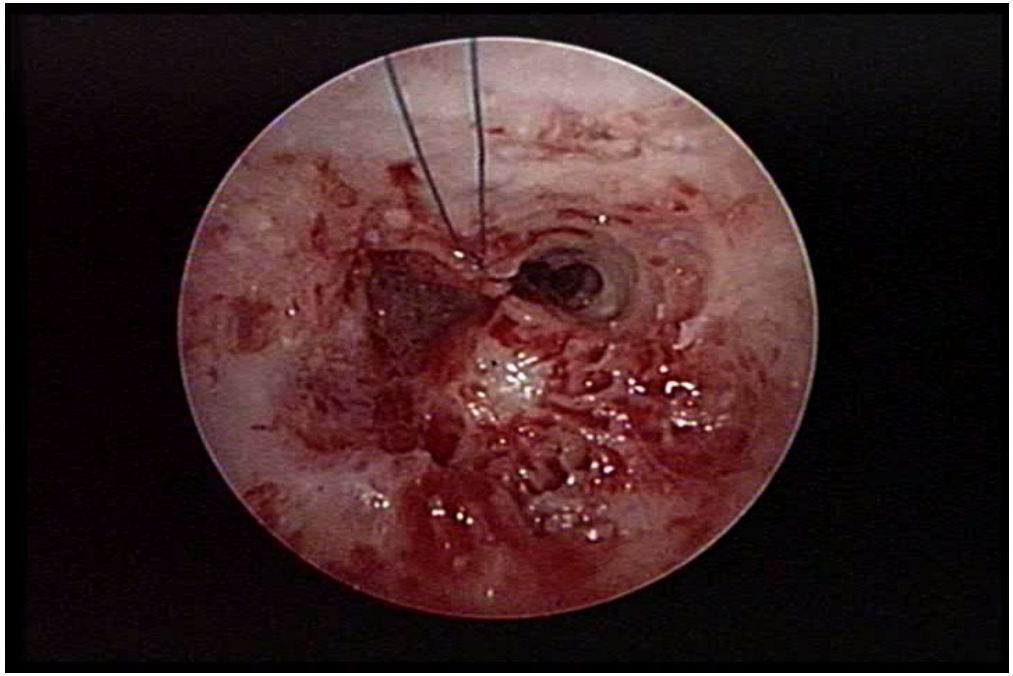
CHARGE – Yikes!



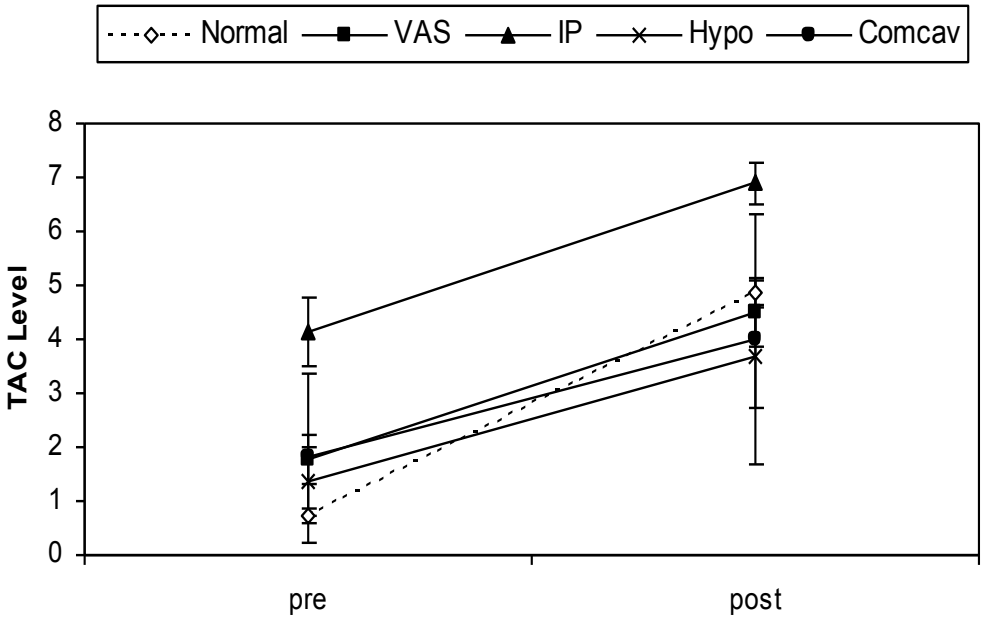
Cochleovestibular Anomalies

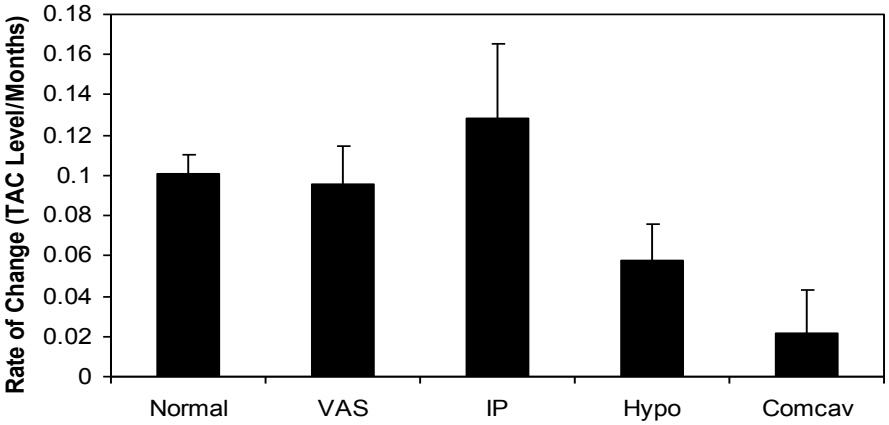
SickKids
THE HOSPITAL FOR SICK CHILDREN
COCHLEAR IMPLANT PROGRAM



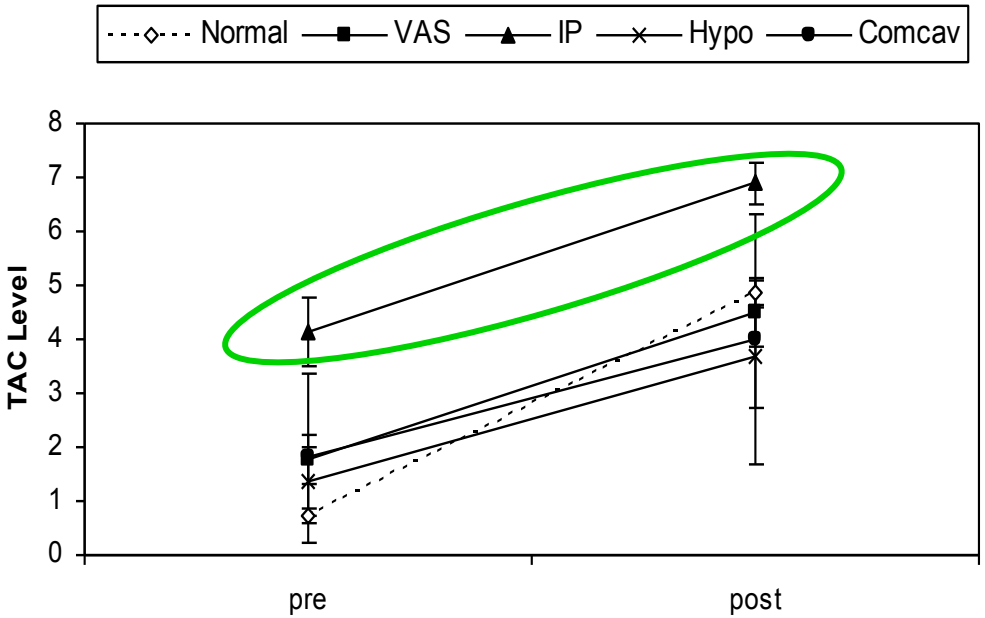


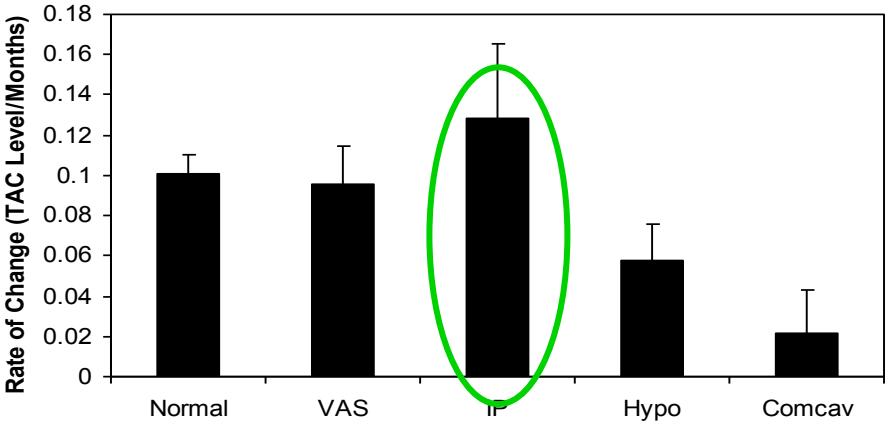
Speech Perception Tests in Anomalous Cochleae



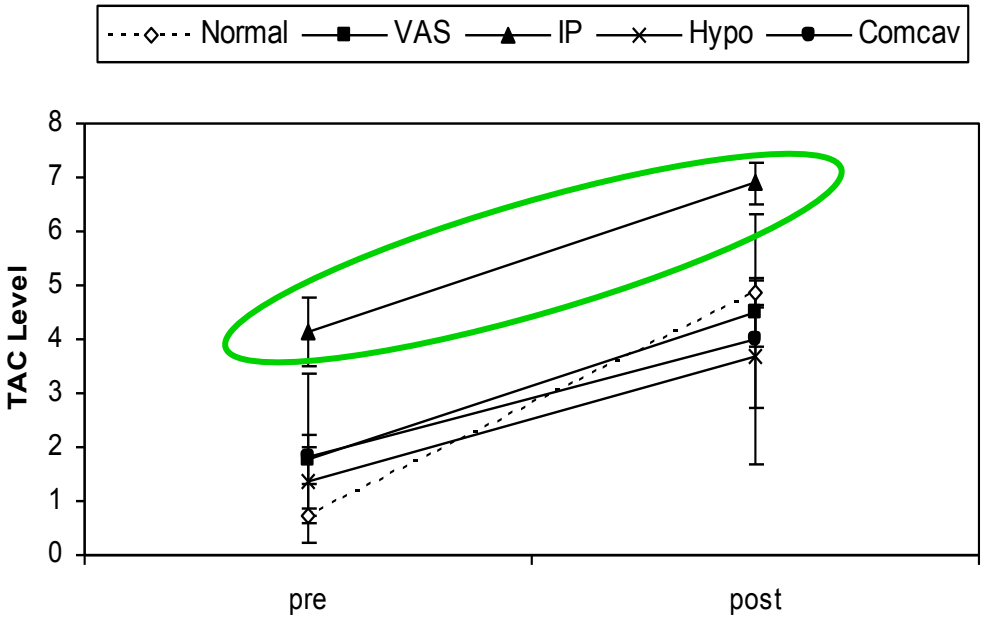


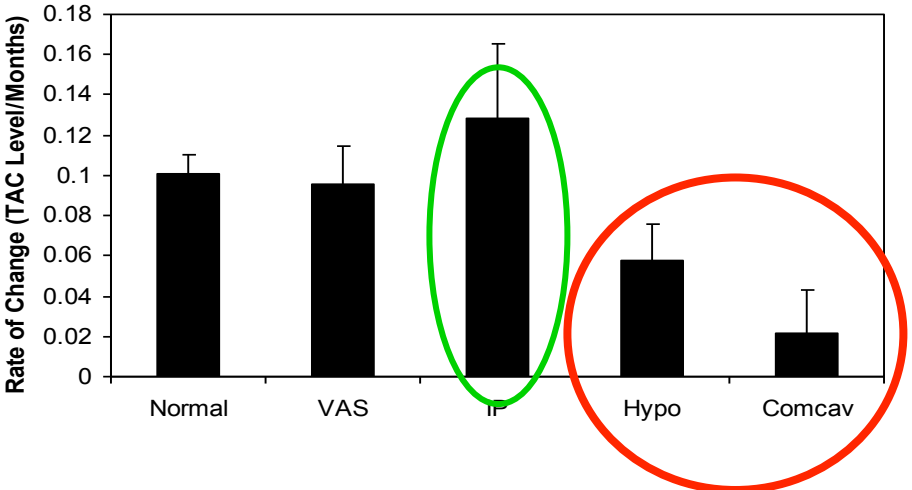
Speech Perception Tests in Anomalous Cochleae



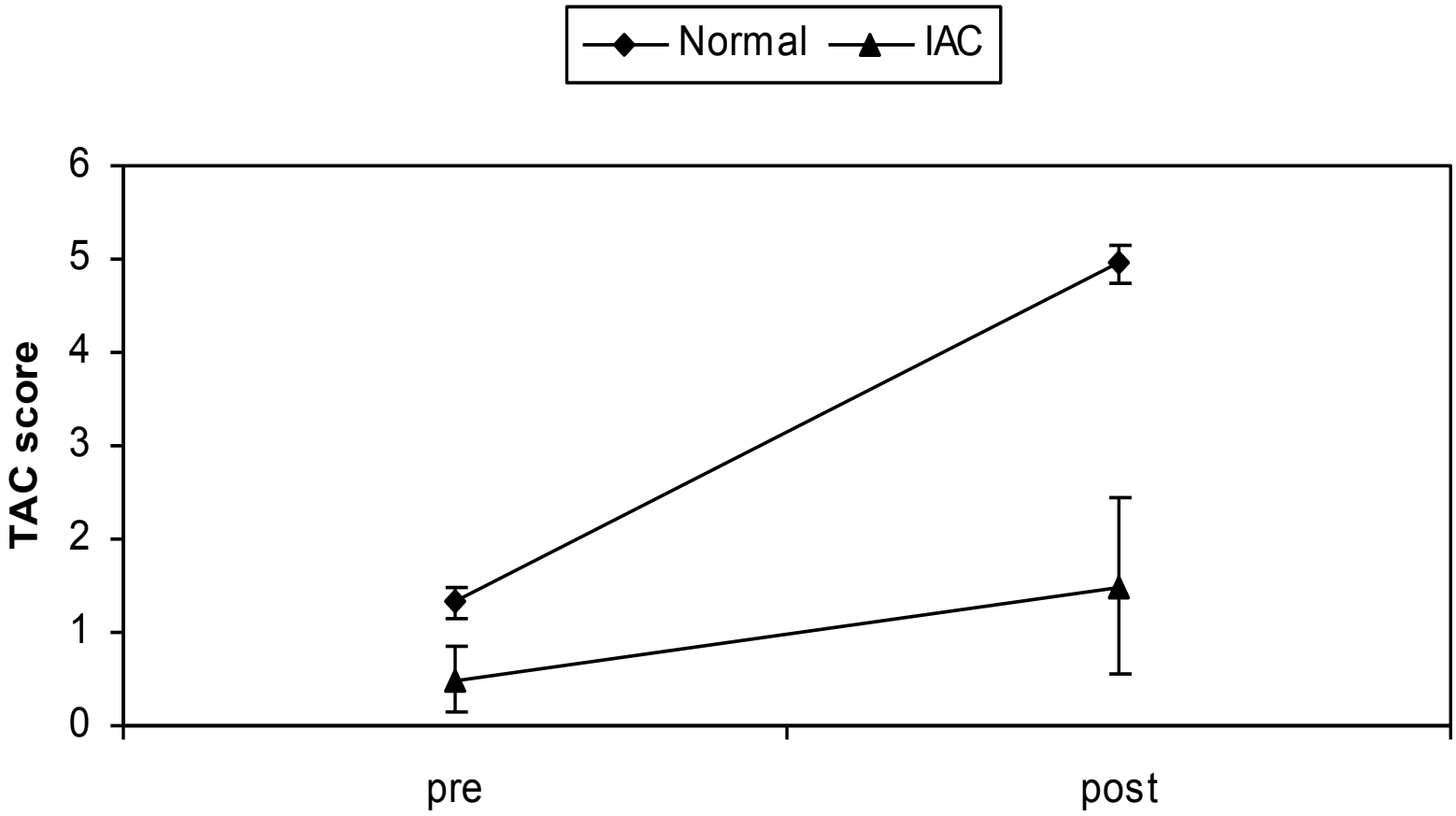


Speech Perception Tests in Anomalous Cochleae

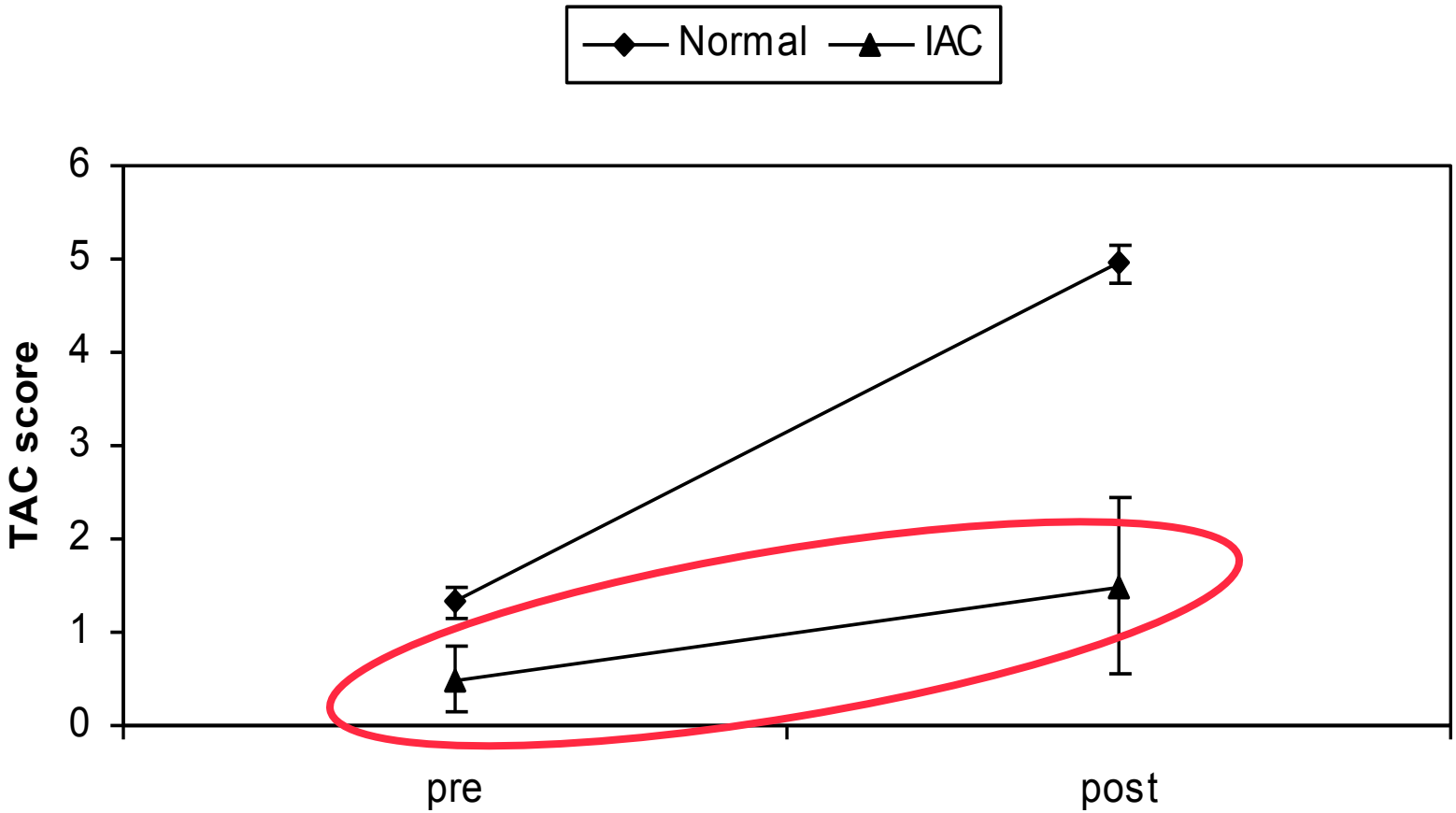




Speech Perception Tests in Anomalous Cochleae



Speech Perception Tests in Anomalous Cochleae



Current Opinion

- most anomalies are implantable
- they are technically challenging
- results are generally good
- narrow or absent nerves concerning