

Temporal Bone Image Library Chapter: Neural Disorders

Otopathology Laboratory



HARVARD MEDICAL SCHOOL
TEACHING HOSPITAL

Vestibular Neuritis, R-108

Title: Vestibular Neuritis, R-108

Chapter: Neural Disorders

Chapter Section: Vestibular Neuritis

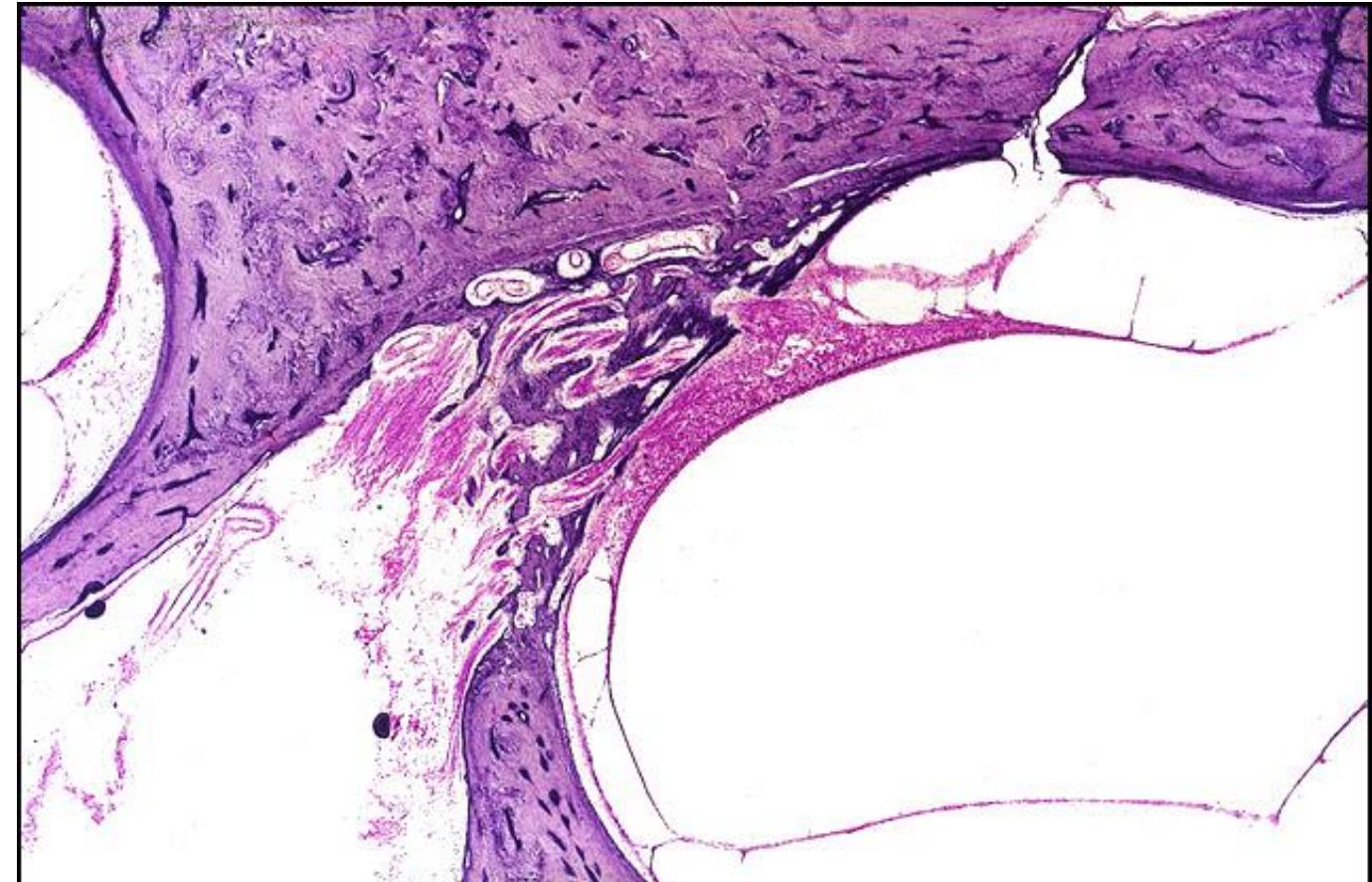
TB Case Number: 678

Gender: Female

Age (yrs.): 87

Otologic Diagnosis:

1. Vestibular neuritis involving the ampillary branch of the superior vestibular nerve and the lateral and superior cristae
2. Atrophy of the spiral ligament, bilateral
3. Primary cochlear neuronal degeneration, bilateral



Traumatic Neuroma, Facial Nerve, L-201

Title: Traumatic Neuroma, Facial Nerve, L-201

Chapter: Neural Disorders

Chapter Section: Traumatic Facial Palsy

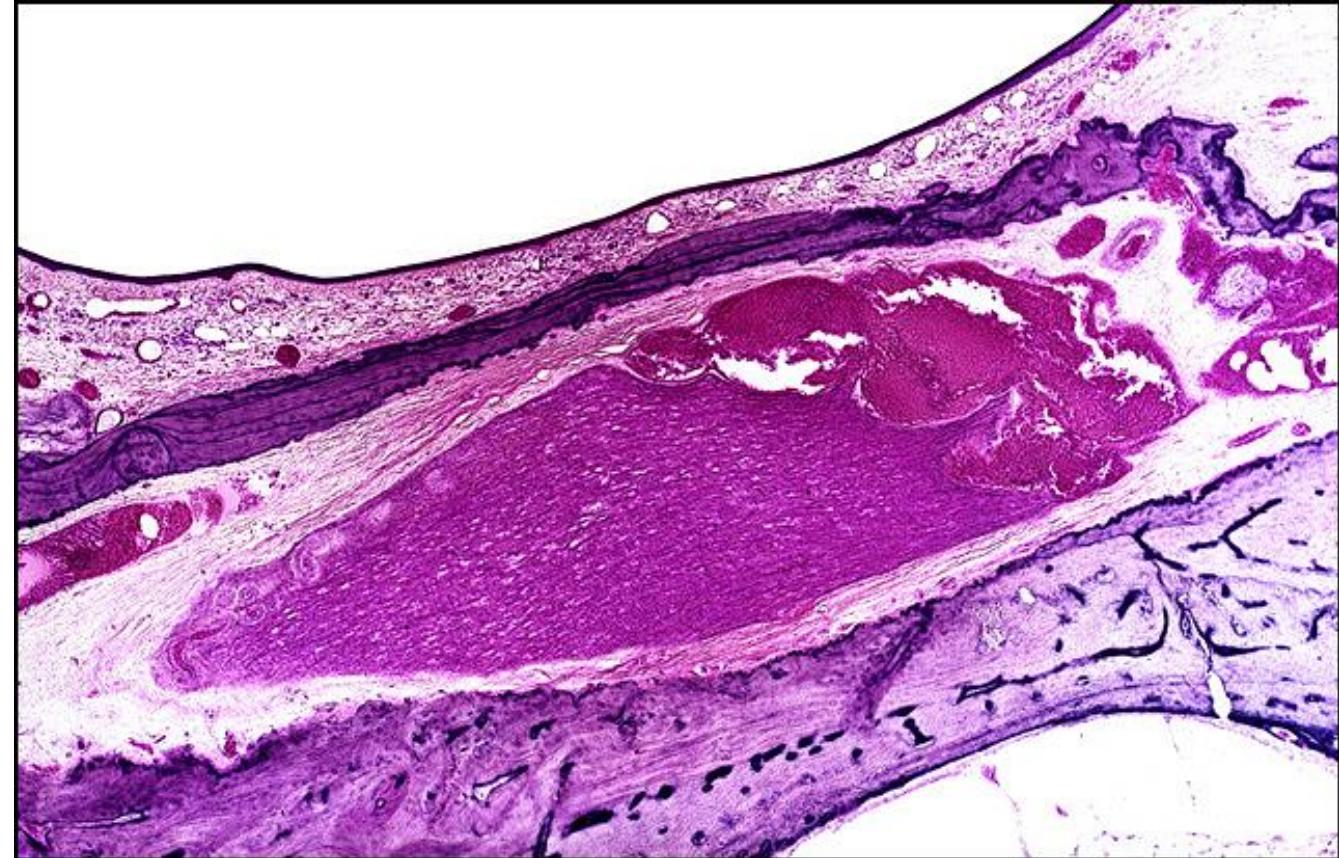
TB Case Number: 158

Gender: Female

Age (yrs.): 68

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoidectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral



Traumatic Neuroma, Facial Nerve, L-561

Title: Traumatic Neuroma, Facial Nerve, L-561

Chapter: Neural Disorders

Chapter Section: Traumatic Facial Palsy

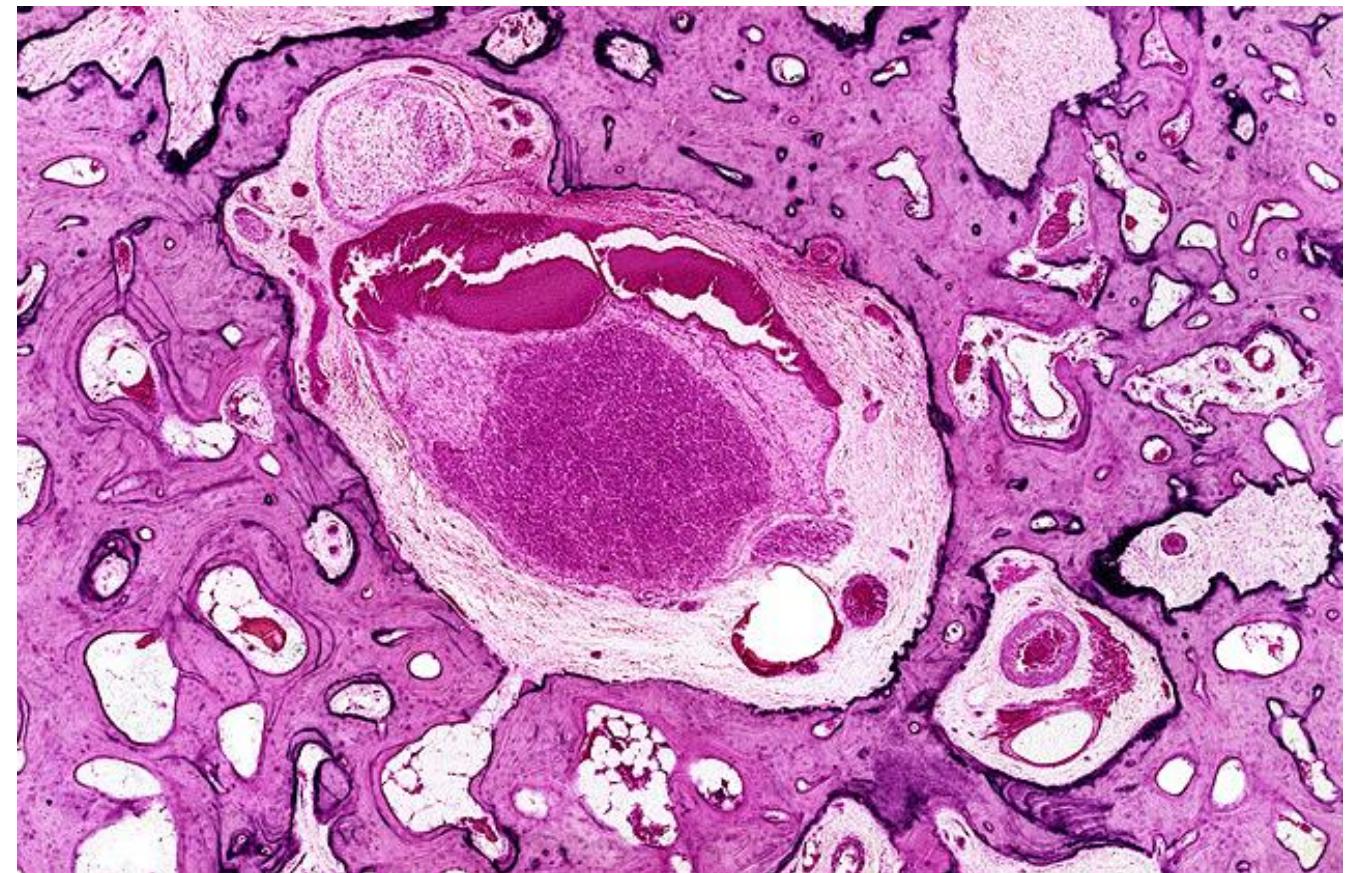
TB Case Number: 158

Gender: Female

Age (yrs.): 68

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoidectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral



Traumatic Neuroma, Facial Nerve, L-571

Title: Traumatic Neuroma, Facial Nerve, L-571

Chapter: Neural Disorders

Chapter Section: Traumatic Facial Palsy

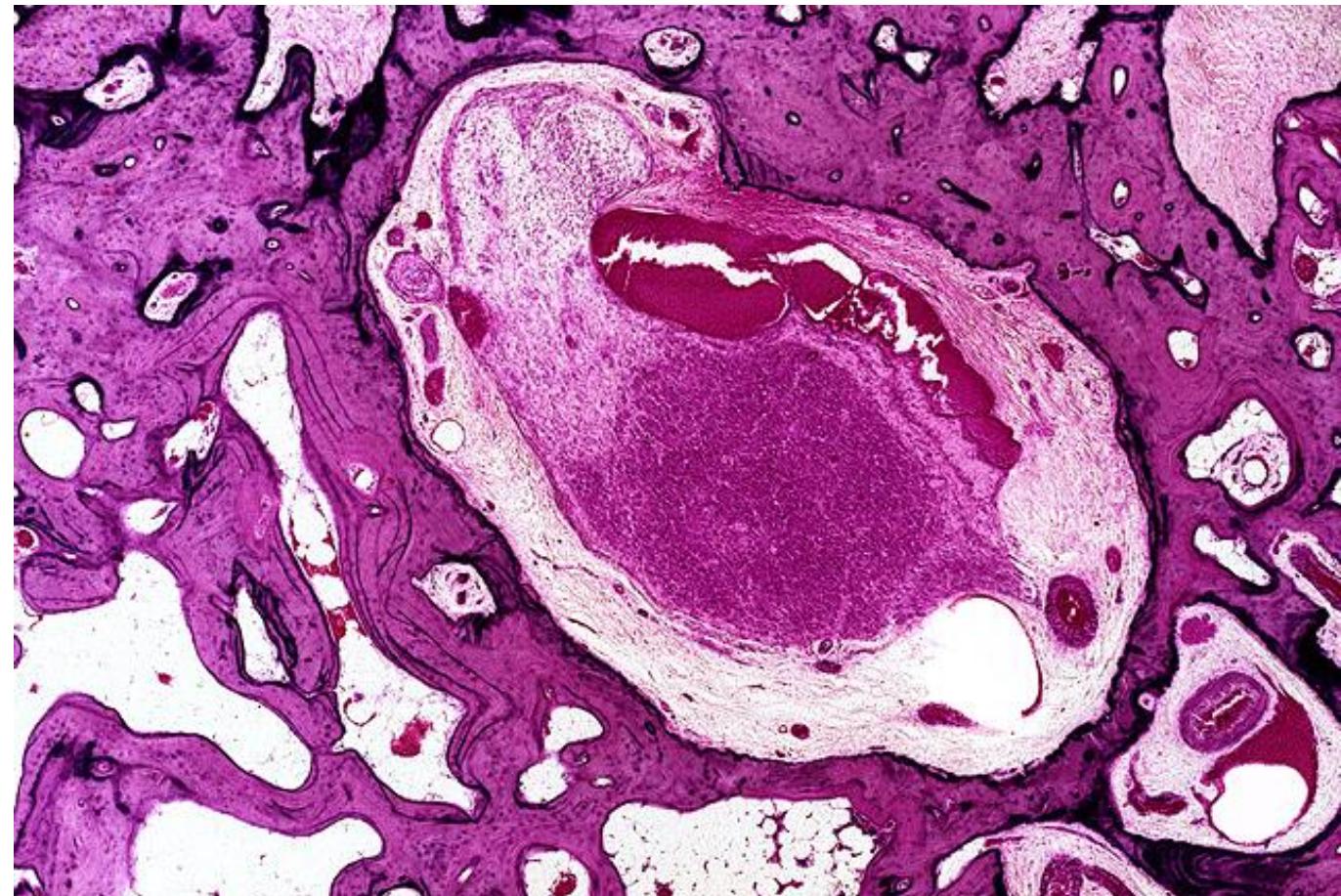
TB Case Number: 158

Gender: Female

Age (yrs.): 68

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoidectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral



Traumatic Neuroma, Facial Nerve

Title: Traumatic Neuroma, Facial Nerve

Chapter: Neural Disorders

Chapter Section: Traumatic Facial Palsy

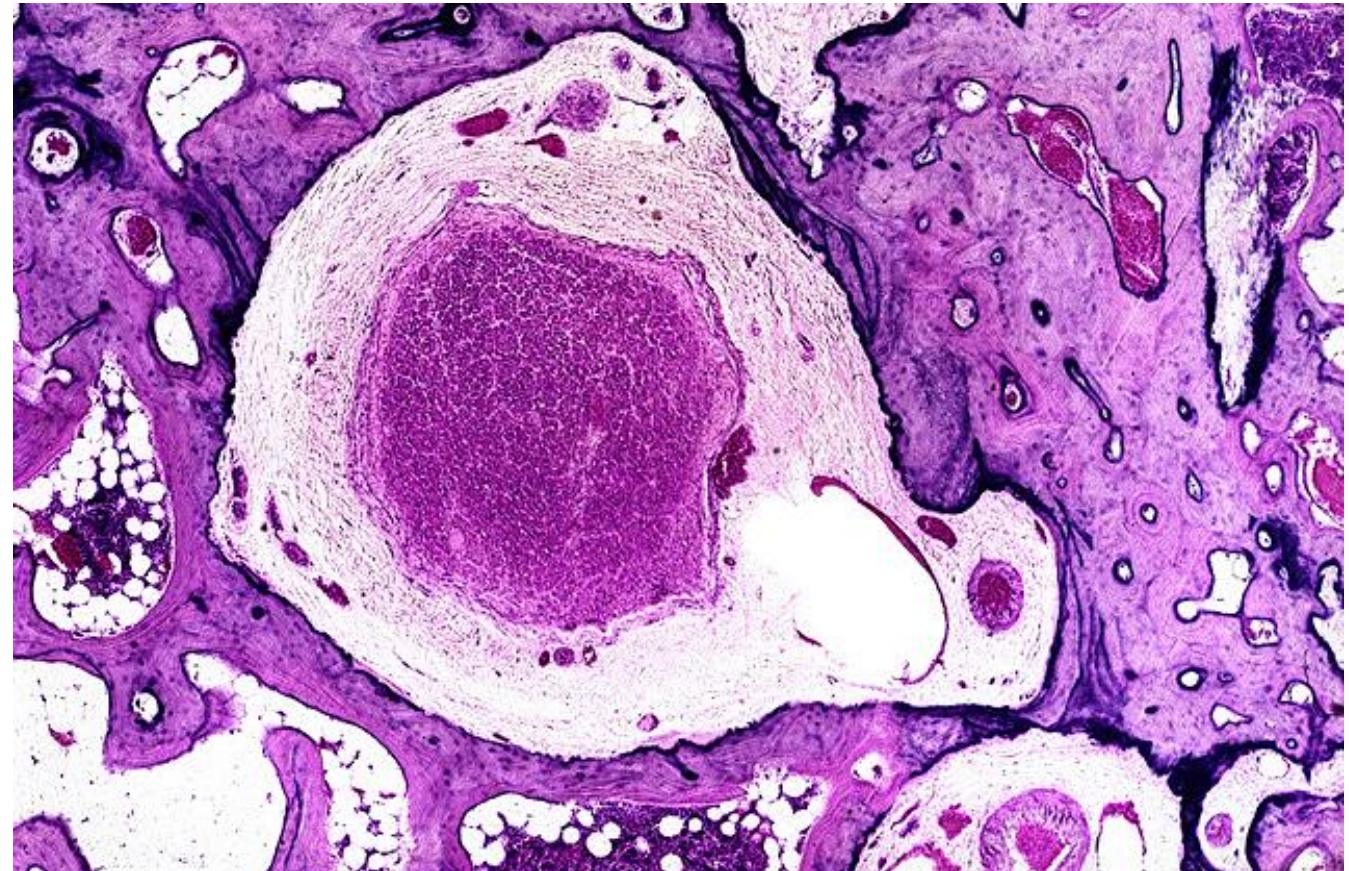
TB Case Number: 158

Gender: Female

Age (yrs.): 68

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoidectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral



Surgical Fracture Fallopian Canal, L-114

Title: Surgical Fracture Fallopian Canal, L-114

Chapter: Neural Disorders

Chapter Section: Traumatic Facial Palsy

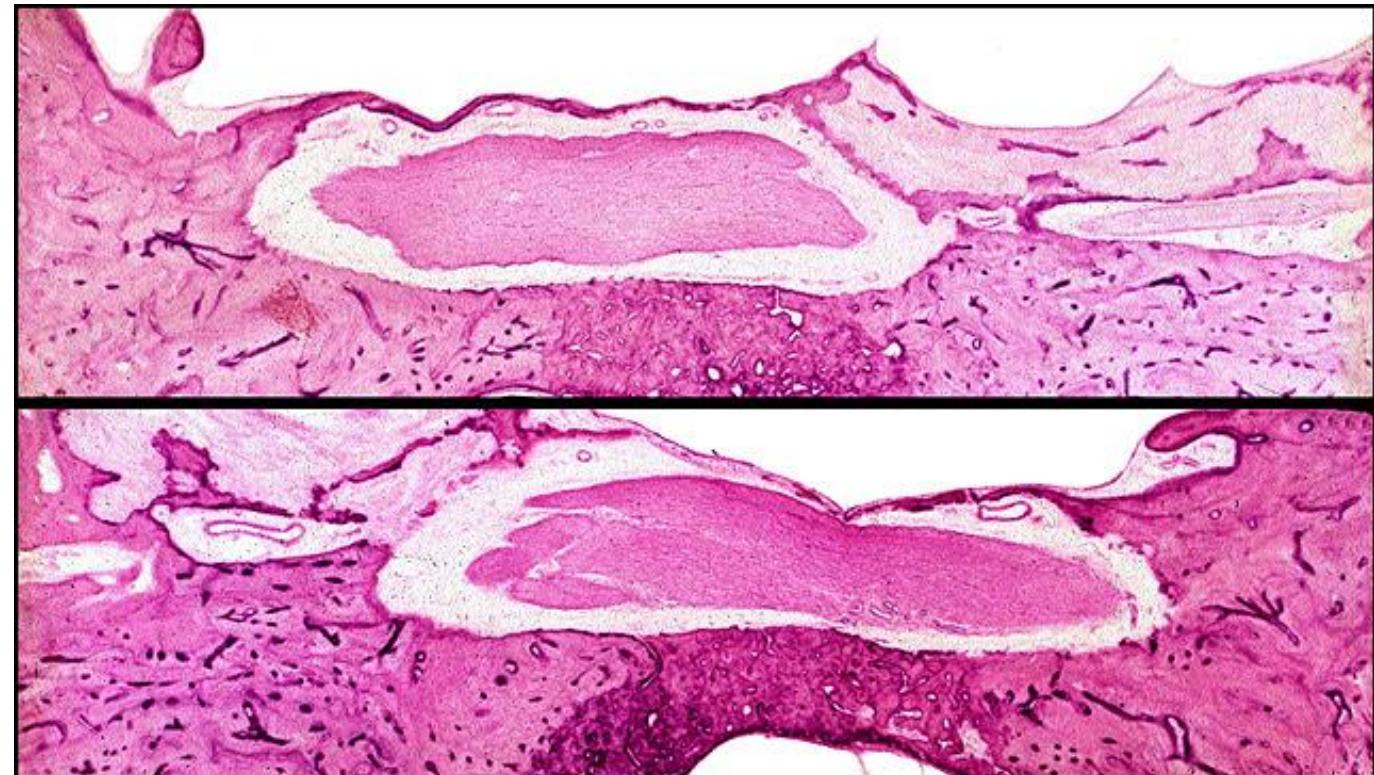
TB Case Number: 404

Gender: Female

Age (yrs.): 56

Otologic Diagnosis:

1. Otosclerosis with stapes fixation, bilateral
2. Stapedectomy with adipose tissue implant to oval window, right
3. Iatrogenic infraction, fallopian canal, causing temporary postoperative facial palsy, right



Surgical Fracture Fallopian Canal, R-106

Title: Surgical Fracture Fallopian Canal, R-106

Chapter: Neural Disorders

Chapter Section: Traumatic Facial Palsy

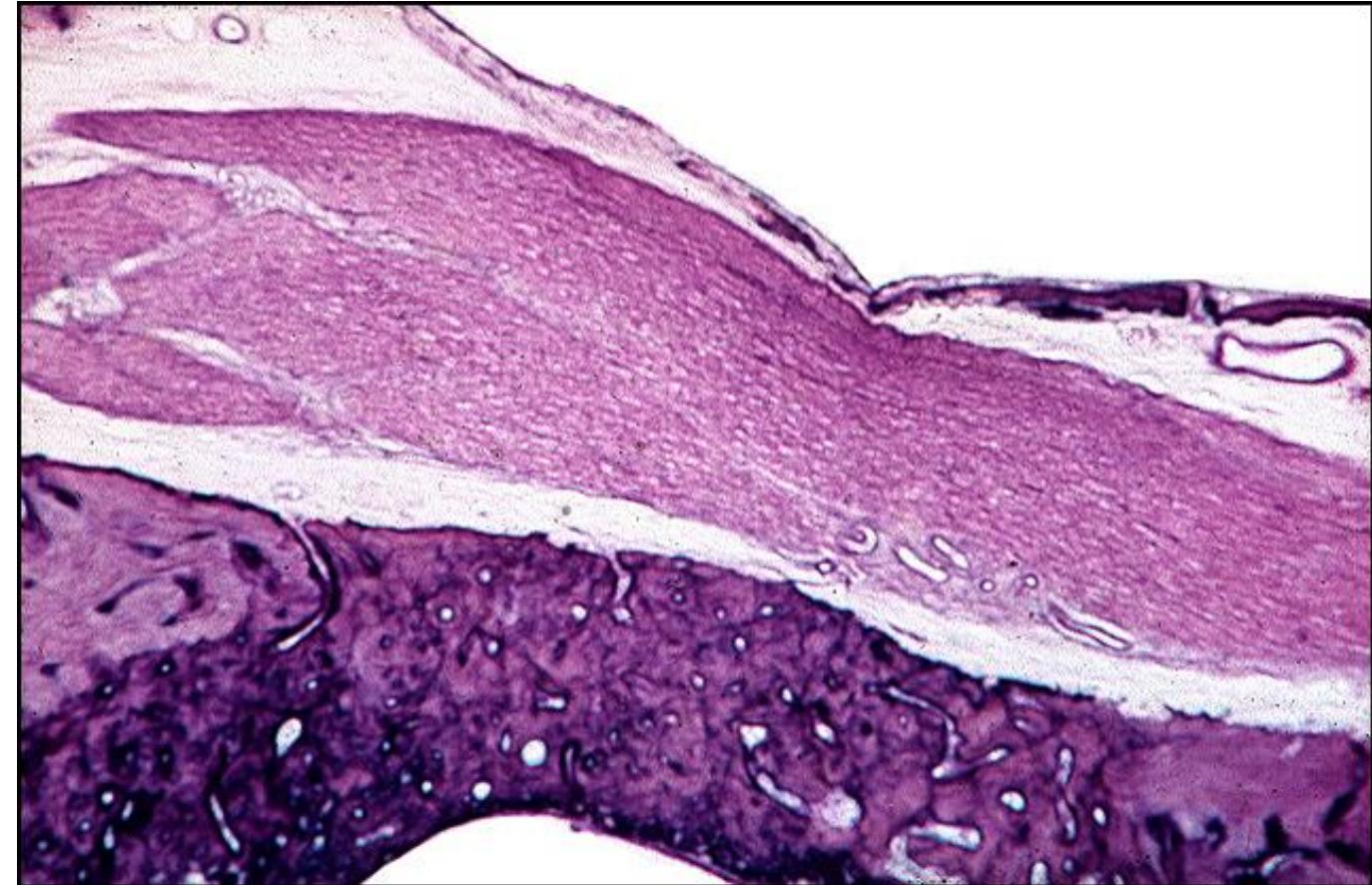
TB Case Number: 404

Gender: Female

Age (yrs.): 56

Otologic Diagnosis:

1. Otosclerosis with stapes fixation, bilateral
2. Stapedectomy with adipose tissue implant to oval window, right
3. Iatrogenic infraction, fallopian canal, causing temporary postoperative facial palsy, right



Supranuclear Lesion facial nerve, L-211

Title: Supranuclear Lesion facial nerve, L-211

Chapter: Neural Disorders

Chapter Section: Patterns of Facial Nerve Degeneration

TB Case Number: 349

Gender: Male

Age (yrs.): 2

Otologic Diagnosis:

1. Sarcoma, undifferentiated, internal auditory canals, without degeneration of nerve trunks, bilateral
2. Basophilic deposits, striae vascularis, bilateral
3. Atrophy of the spiral ligaments, bilateral
4. Post inflammatory mucosal fibrosis, right mastoid



Medullary Lesion of Facial Nerve, L-413

Title: Medullary Lesion of Facial Nerve, L-413

Chapter: Neural Disorders

Chapter Section: Patterns of Facial Nerve

Degeneration

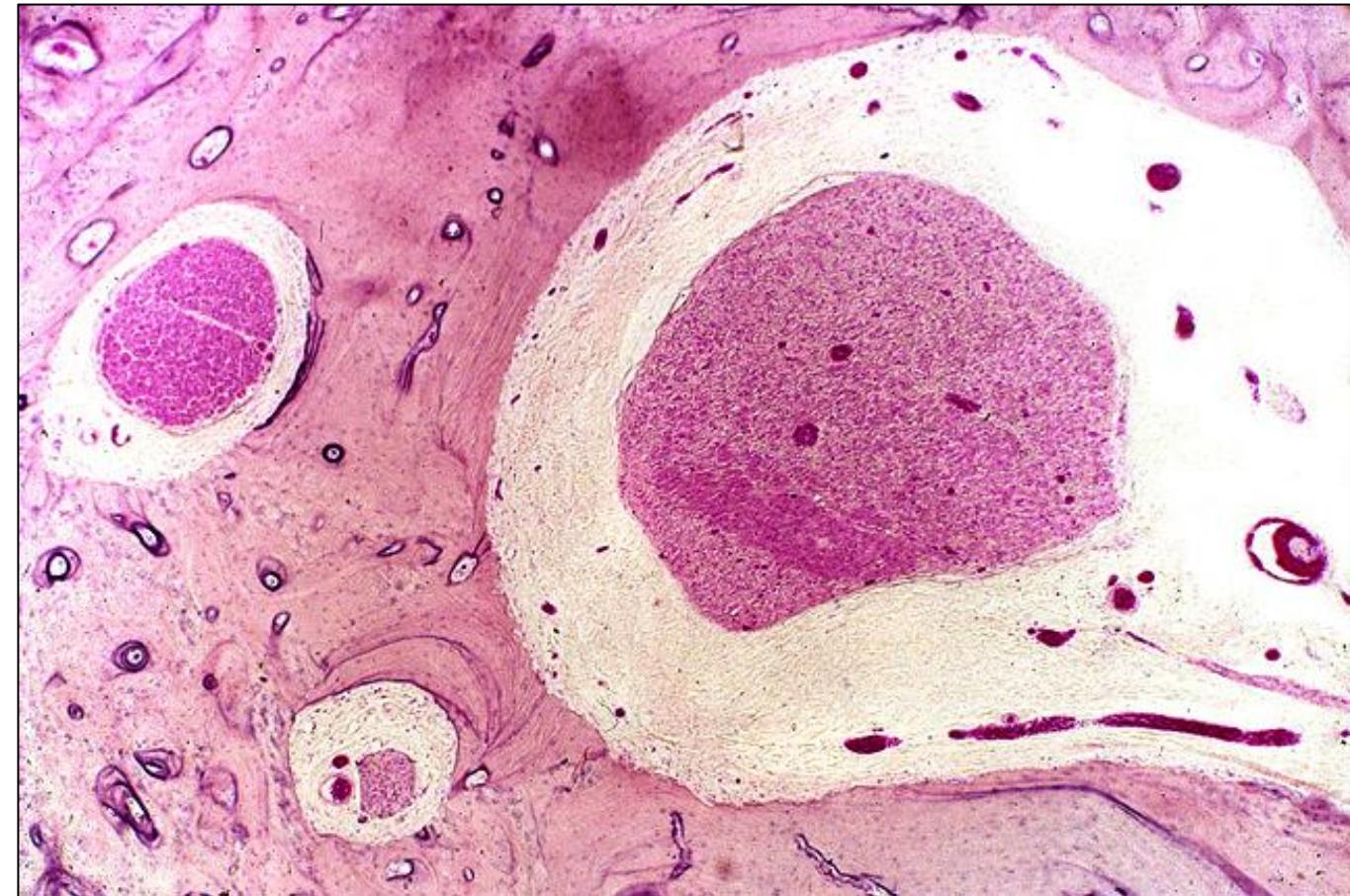
TB Case Number: 334

Gender: Female

Age (yrs.): 5

Otologic Diagnosis:

1. Profound deafness, due to astrocytoma of the pons and brain stem, left
2. Facial nerve, motor fibers, degeneration, left, due to #1
3. Stapedius muscle, atrophy, due to denervation, left
4. Otitis media, purulent, mild, left



Meatal Lesion of Facial Nerve, L-145

Title: Meatal Lesion of Facial Nerve, L-145

Chapter: Neural Disorders

Chapter Section: Patterns of Facial Nerve Degeneration

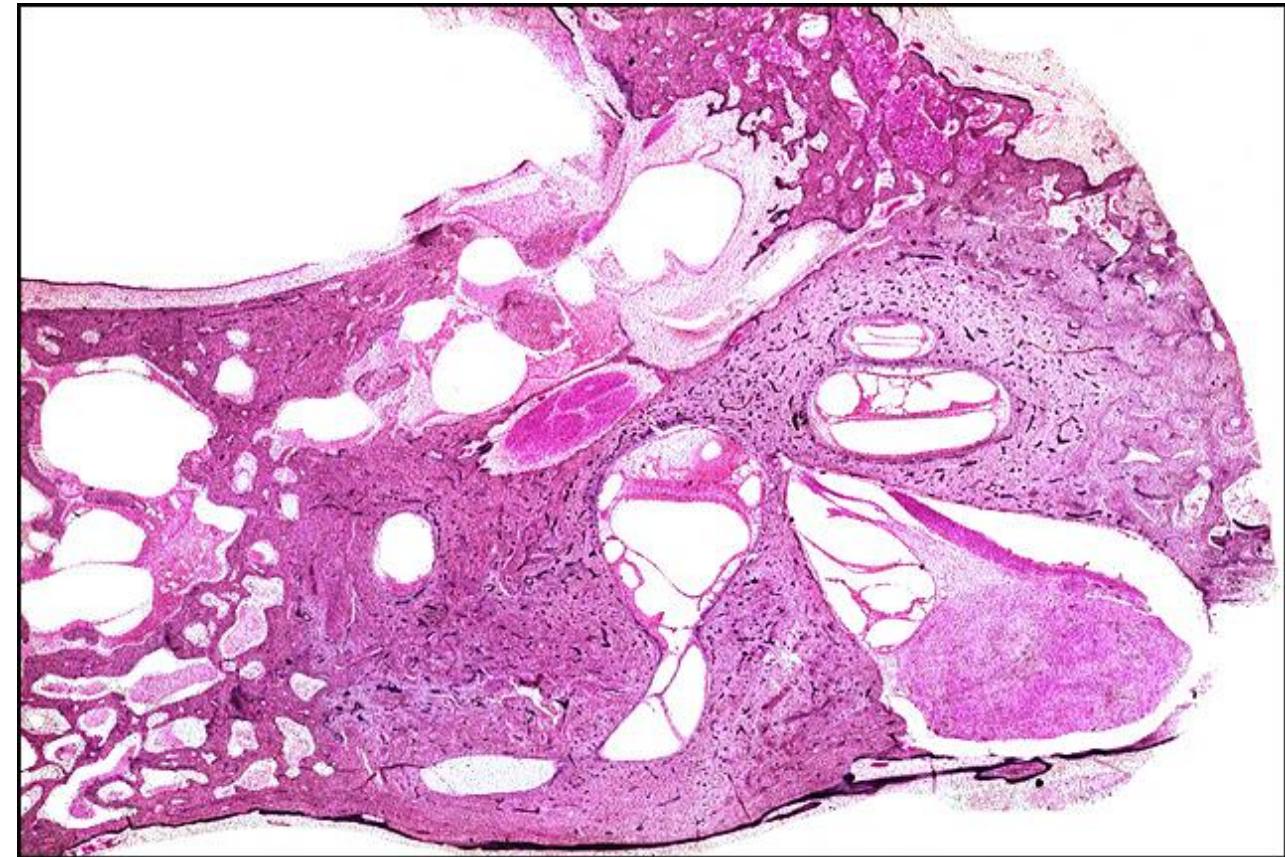
TB Case Number: 155

Gender: Male

Age (yrs.): 81

Otologic Diagnosis:

1. Schwannoma, vestibular, large, superior division, left
2. Organ of Corti, partial atrophy, vestibular schwannoma, left
3. Vestibular labyrinth, partial atrophy, vestibular schwannoma, left
4. Facial nerve, compression, vestibular schwannoma, left



Meatal Lesion of Facial Nerve, L-34

Title: Meatal Lesion of Facial Nerve, L-34

Chapter: Neural Disorders

Chapter Section: Patterns of Facial Nerve Degeneration

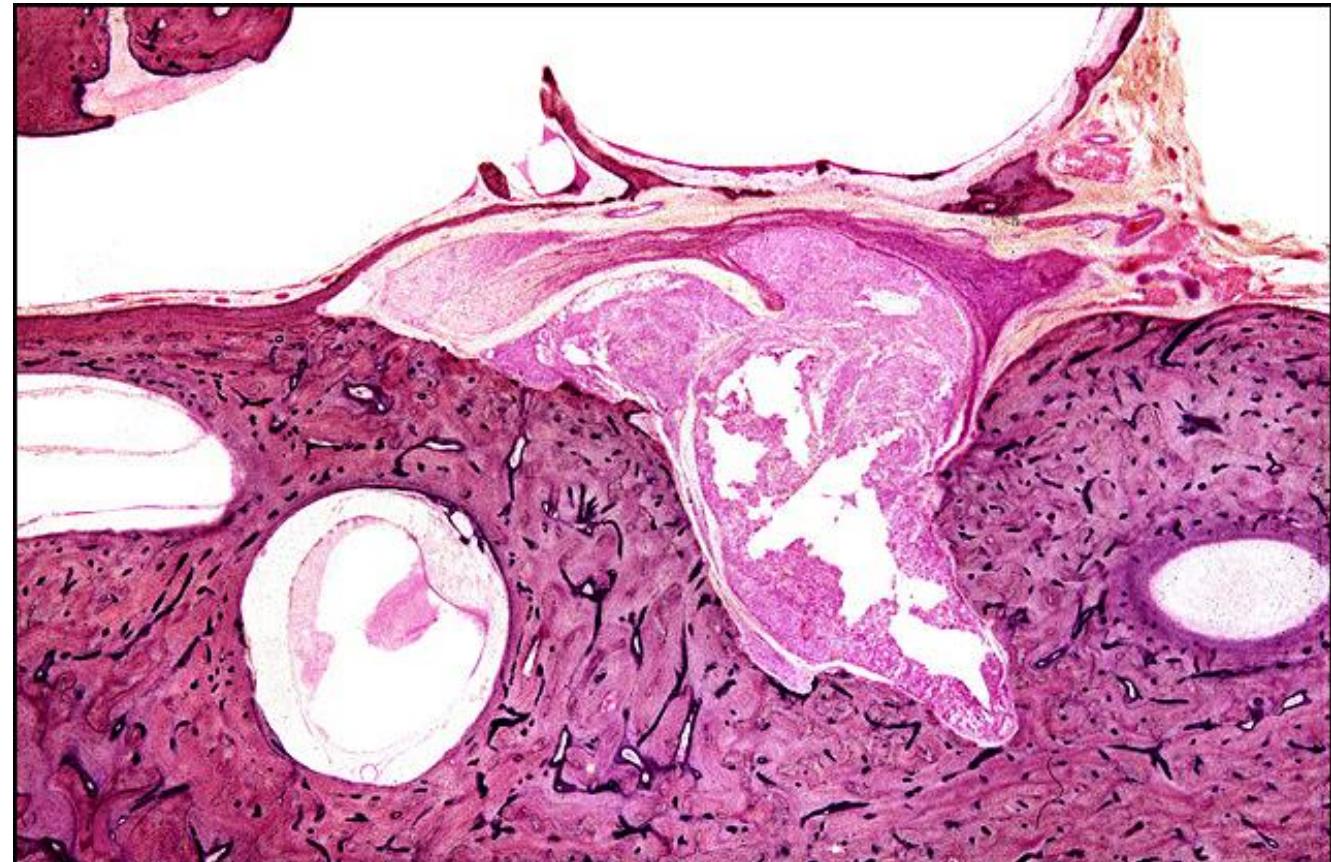
TB Case Number: 568

Gender: Female

Age (yrs.): 61

Otologic Diagnosis:

1. Meningotheliomatous meningioma, temporal bone, left
2. Destruction of the VIIth and VIIIth cranial nerves secondary to meningioma



Meatal Lesion of Facial Nerve, R-489

Title: Meatal Lesion of Facial Nerve, R-489

Chapter: Neural Disorders

Chapter Section: Patterns of Facial Nerve
Degeneration

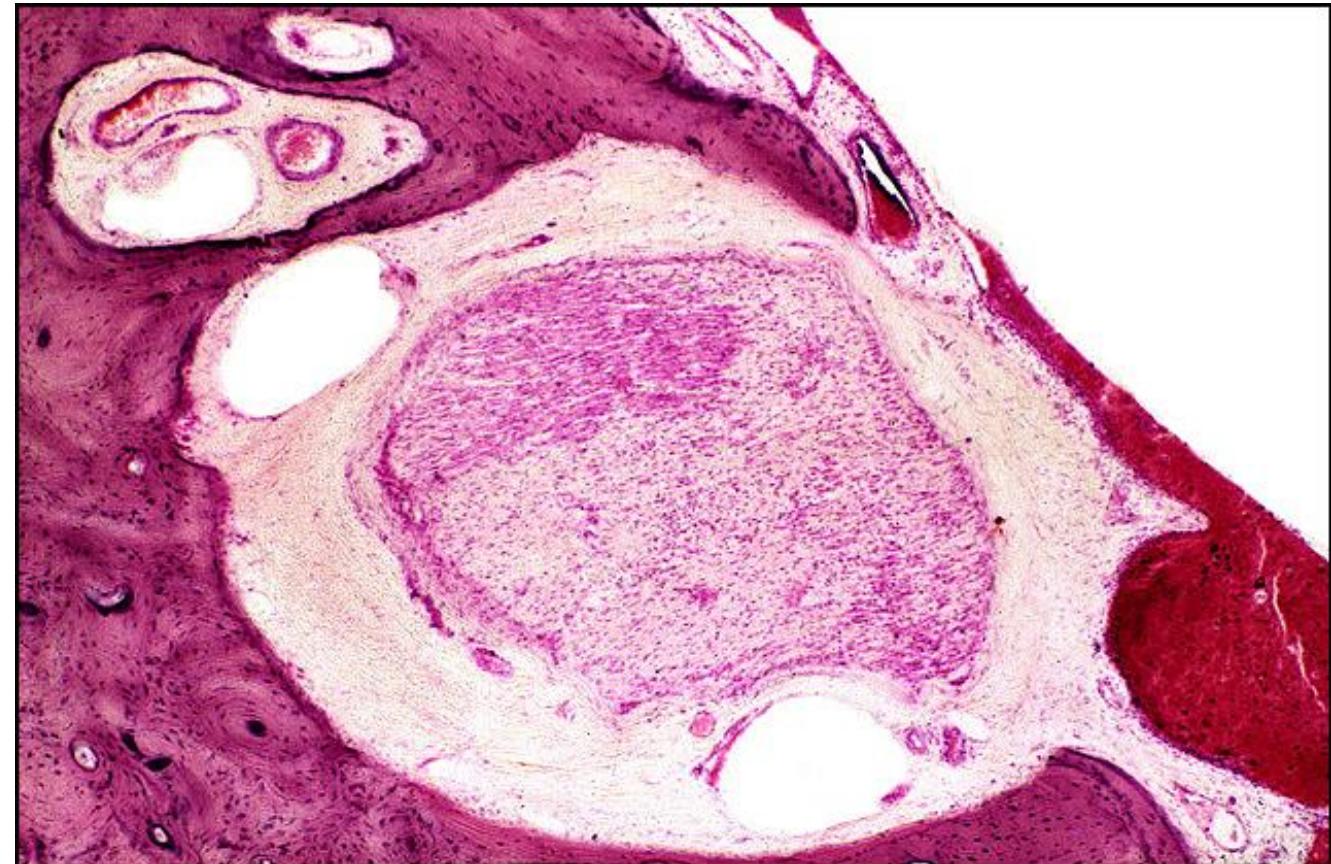
TB Case Number: 568

Gender: Female

Age (yrs.): 61

Otologic Diagnosis:

1. Meningotheliomatous meningioma, temporal bone, left
2. Destruction of the VIIth and VIIIth cranial nerves secondary to meningioma



Resorptive Osteitis Affecting Facial Nerve, L-211, R-271

Title: Resorptive Osteitis affecting Facial Nerve,
L-211, R-271

Chapter: Neural Disorders

Chapter Section: Patterns of Facial Nerve
Degeneration

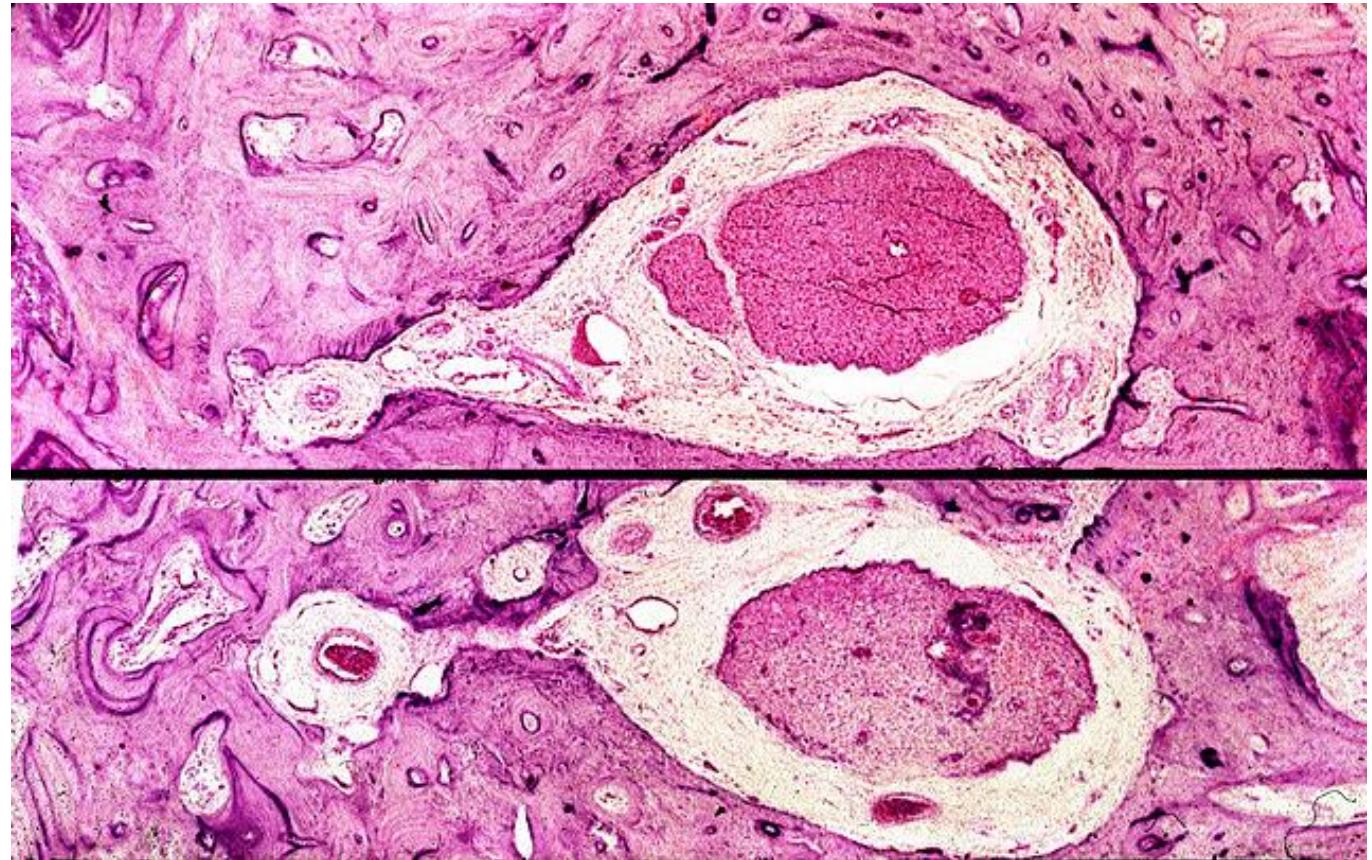
TB Case Number: 713

Gender: Female

Age (yrs.): 70

Otologic Diagnosis:

1. Osteomyelitis, temporal bones, bilateral
2. Osteitis, rarefying, bony labyrinth with destruction of inner ear, right
3. Atrophy of the facial nerve secondary to osteomyelitis of the temporal bone, right
4. Labyrinthitis, early, acute, secondary to osteosclerosis



Acute Facial Palsy, R-221

Title: Acute Facial Palsy, R-221

Chapter: Neural Disorders

Chapter Section: Miscellaneous Causes of Facial Palsy

TB Case Number: 829

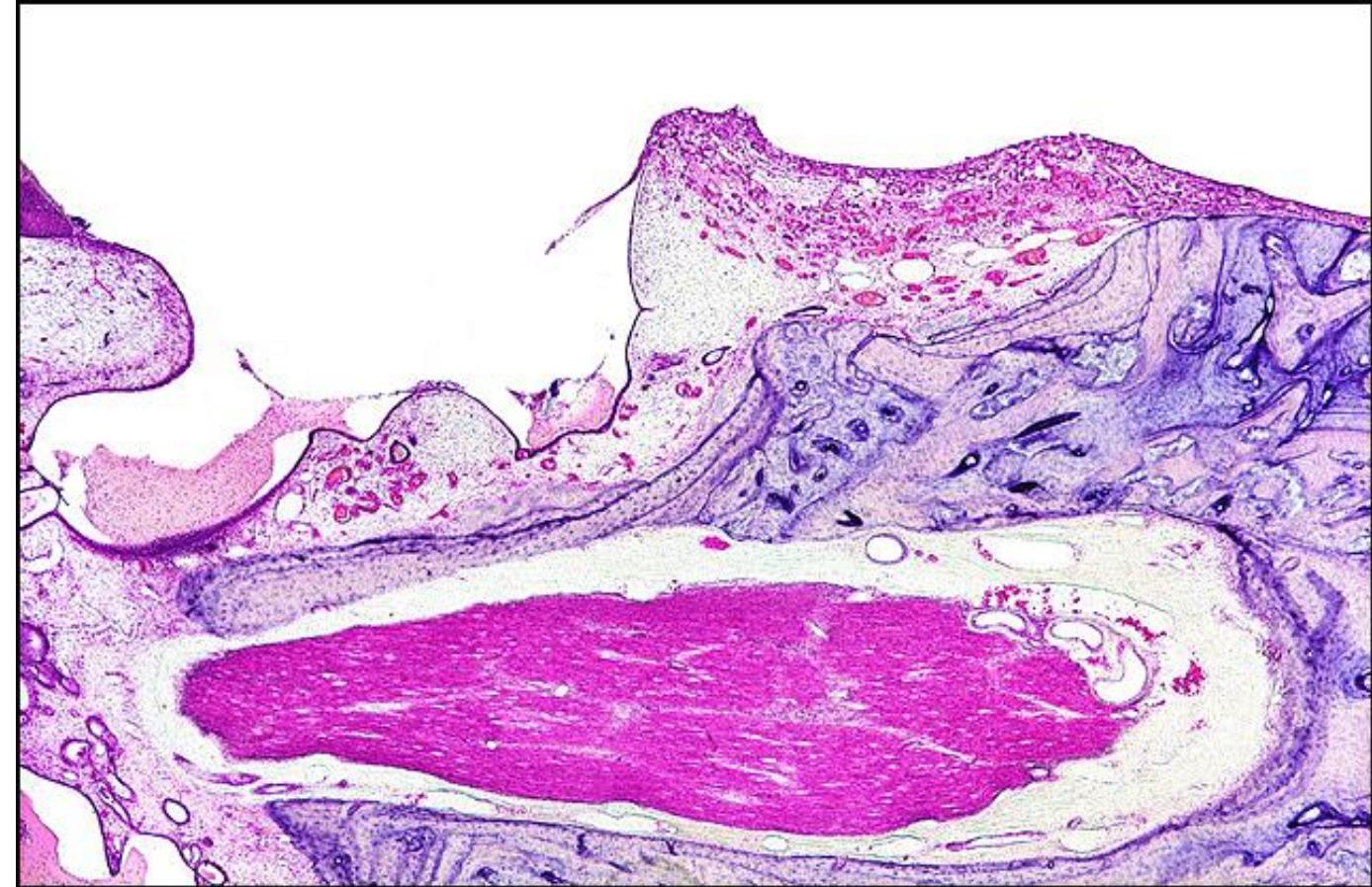
Comments: COM, Cholesteatoma, Cerebellar Abscess

Gender: Male

Age (yrs.): 16

Otologic Diagnosis:

1. Radical mastoidectomy cavity, recent (3 wks.)
2. Thrombosis, lateral venous sinus (by history)
3. Meningitis (PMNs in subarachnoid space of internal auditory canal)
4. Facial nerve, atrophy, mastoid segment



Nervus Intermedius Lesion, Schwannoma, L-87

Title: Nervus Intermedius Lesion, Schwannoma, L-87

Chapter: Neural Disorders

Chapter Section: Neoplasia of Facial Nerve

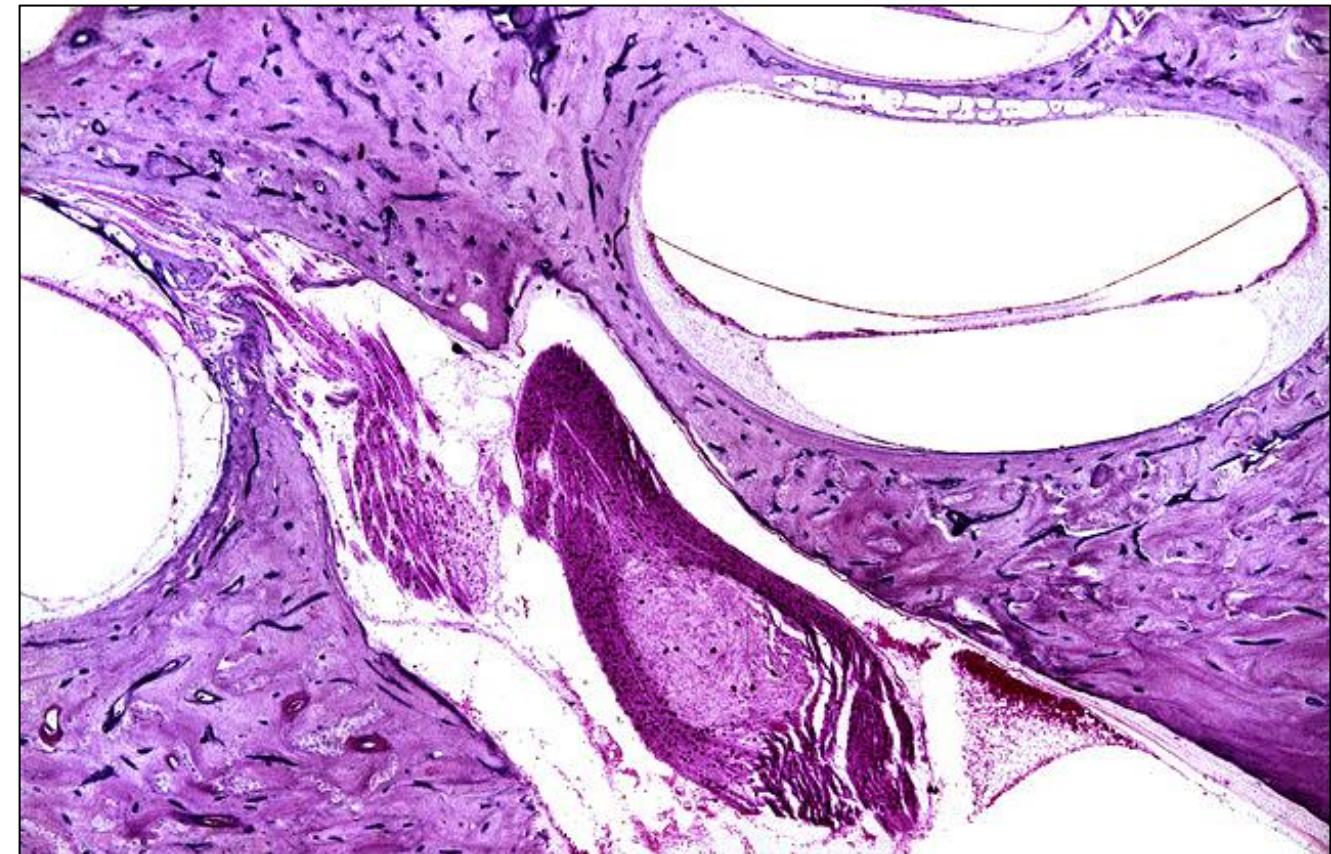
TB Case Number: 315

Gender: Female

Age (yrs.): 75

Otologic Diagnosis:

1. Perforation, tympanic membrane, bilateral
2. Dimeric membrane, tympanic membrane, bilateral
3. Osteitis, resorptive, incus, bilateral
4. Mucocutaneous junction, in external auditory canal, right
5. Granuloma, cholesterol, small, mastoid, right



Vestibular Neuritis, R-291

Title: R-291 Vestibular Neuritis

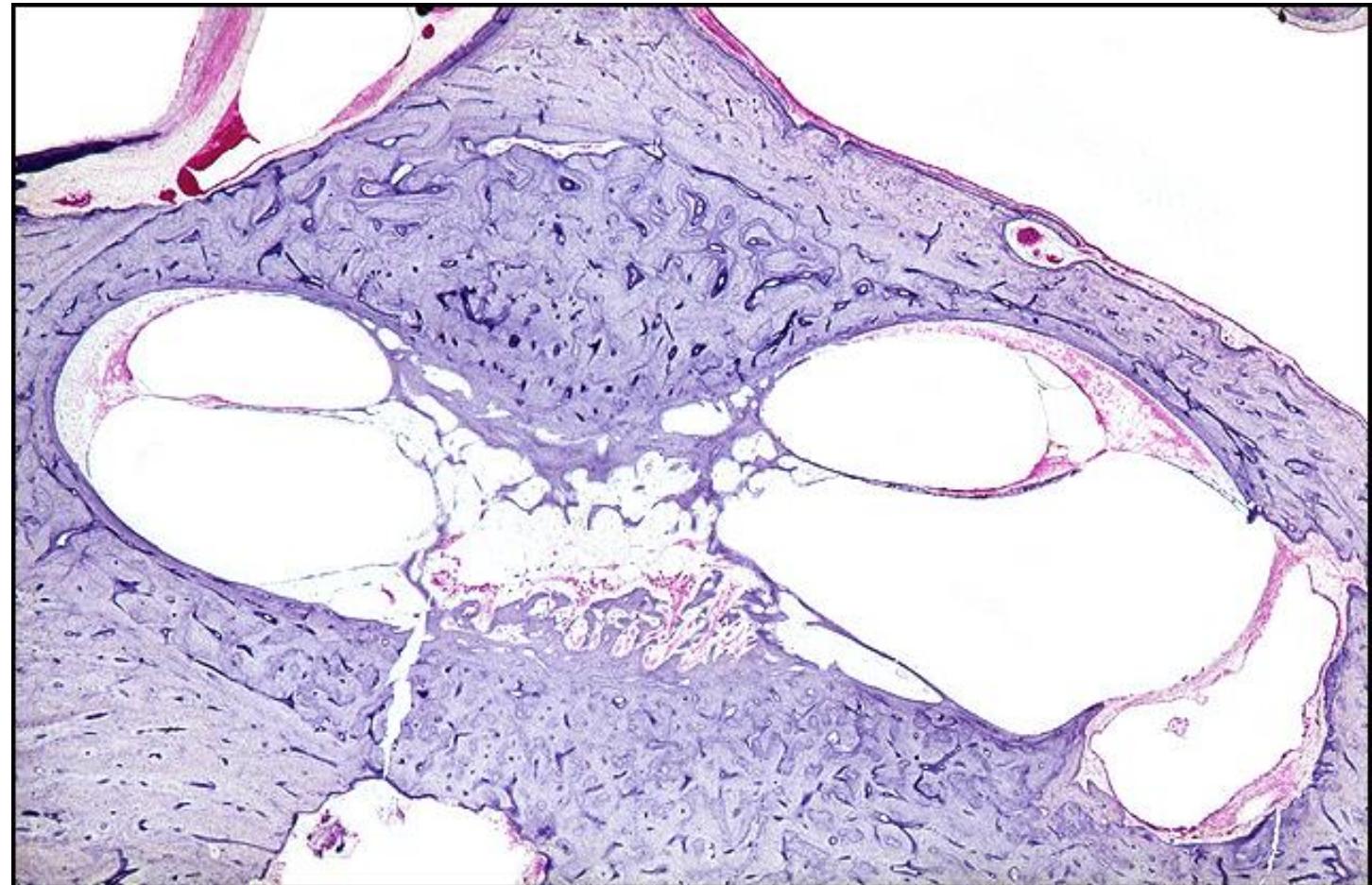
Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

TB Case Number: 484

Gender: Male

Age (yrs.): 93



Vestibular Neuritis, R-291

Title: Vestibular Neuritis, R-291

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies, Vestibular Neuritis

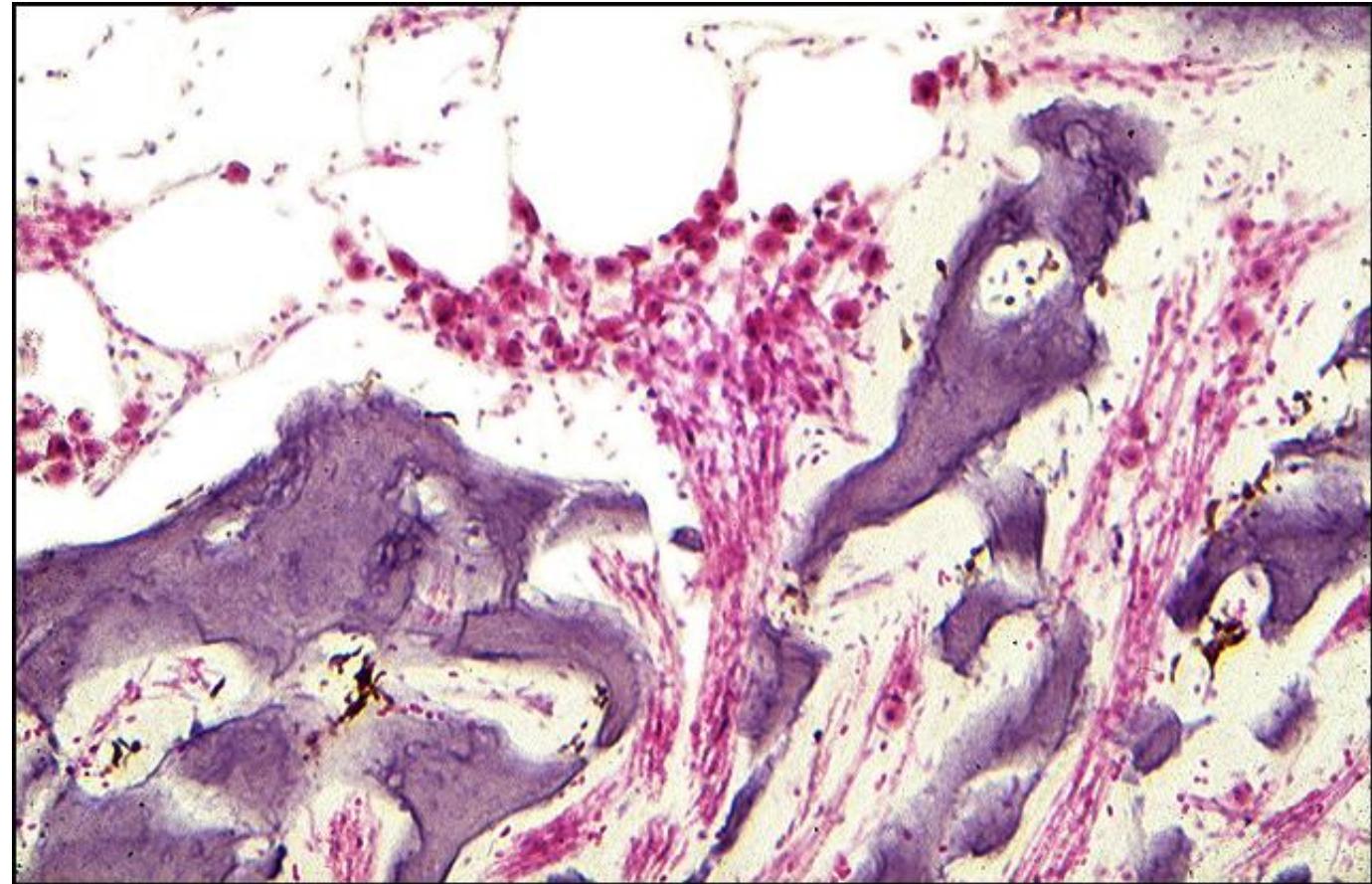
TB Case Number: 484

Gender: Male

Age (yrs.): 93

Otologic Diagnosis:

1. Endolymphatic hydrops, (Meniere's disease), left
2. Organ of Corti, atrophy, basal turn, bilateral
3. Stria vascularis, partial atrophy, basal and apical turns, bilateral
4. Cupulolithiasis, posterior semicircular canal, left



Vestibular Neuritis, L-52, R-61

Title: Vestibular Neuritis, L-52, R-61

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies, Vestibular Neuritis

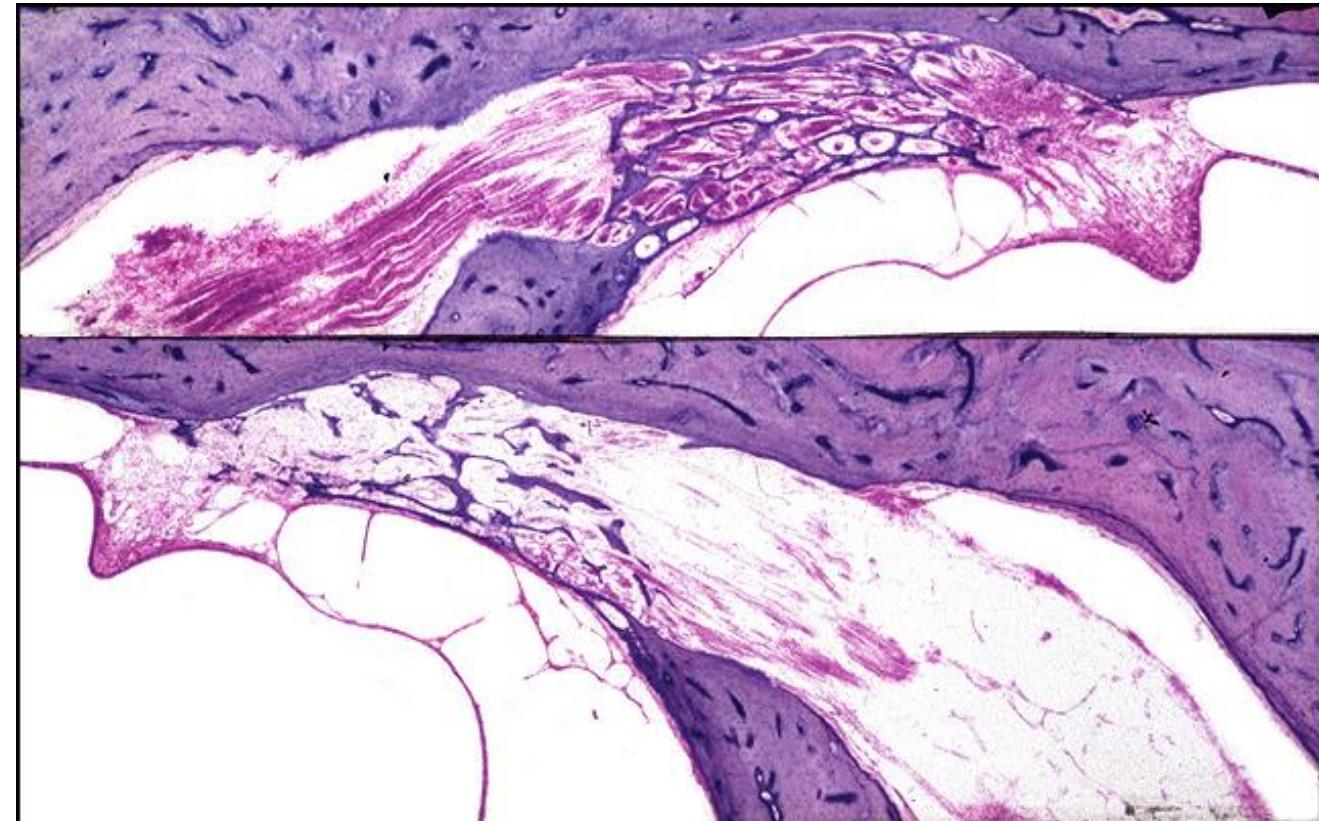
TB Case Number: 830

Gender: Male

Age (yrs.): 71

Otologic Diagnosis:

1. Otitis media, chronic, suppurative, bilateral
2. Mastoiditis, bilateral
3. Mastoidectomy, radical, with keratin-fungal mass filling tympanomastoid area, left
4. Fistula, pathologic, promontory, left
5. Infraction, surgical, lateral semicircular canal, left
6. Vestibular nerve, atrophy (vestibular neuritis), horizontal segment of ampullary branch



Vestibular Neuritis, L-71

Title: Vestibular Neuritis, L-71

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies, Vestibular Neuritis

TB Case Number: 830

Gender: Male

Age (yrs.): 71

Otologic Diagnosis:

1. Otitis media, chronic, suppurative, bilateral
2. Mastoiditis, bilateral
3. Mastoidectomy, radical, with keratin-fungal mass filling tympanomastoid area, left
4. Fistula, pathologic, promontory, left
5. Infraction, surgical, lateral semicircular canal, left
6. Vestibular nerve, atrophy (vestibular neuritis), horizontal segment of ampullary branch



Vestibular Neuritis, L-171

Title: Vestibular Neuritis, L-171

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies, Vestibular Neuritis

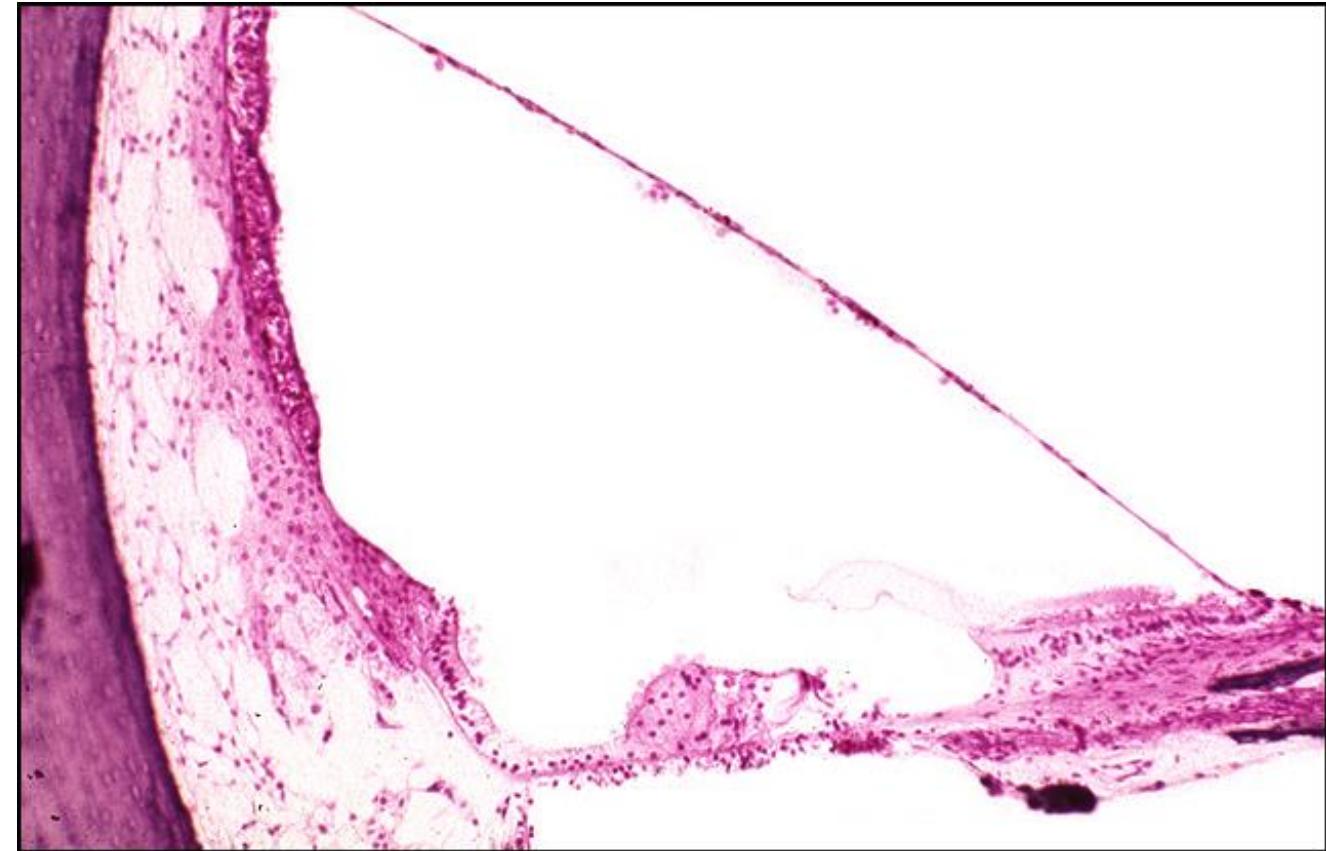
TB Case Number: 846

Gender: Female

Age (yrs.): 92

Otologic Diagnosis:

1. Vestibular neuritis, superior division, left
2. Atrophy of organ of Corti and stria vascularis, apical and basal turns, right
3. Pigmentary deposits, left



Vestibular Neuritis, R-200

Title: Vestibular Neuritis, R-200

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,

Vestibular Neuritis

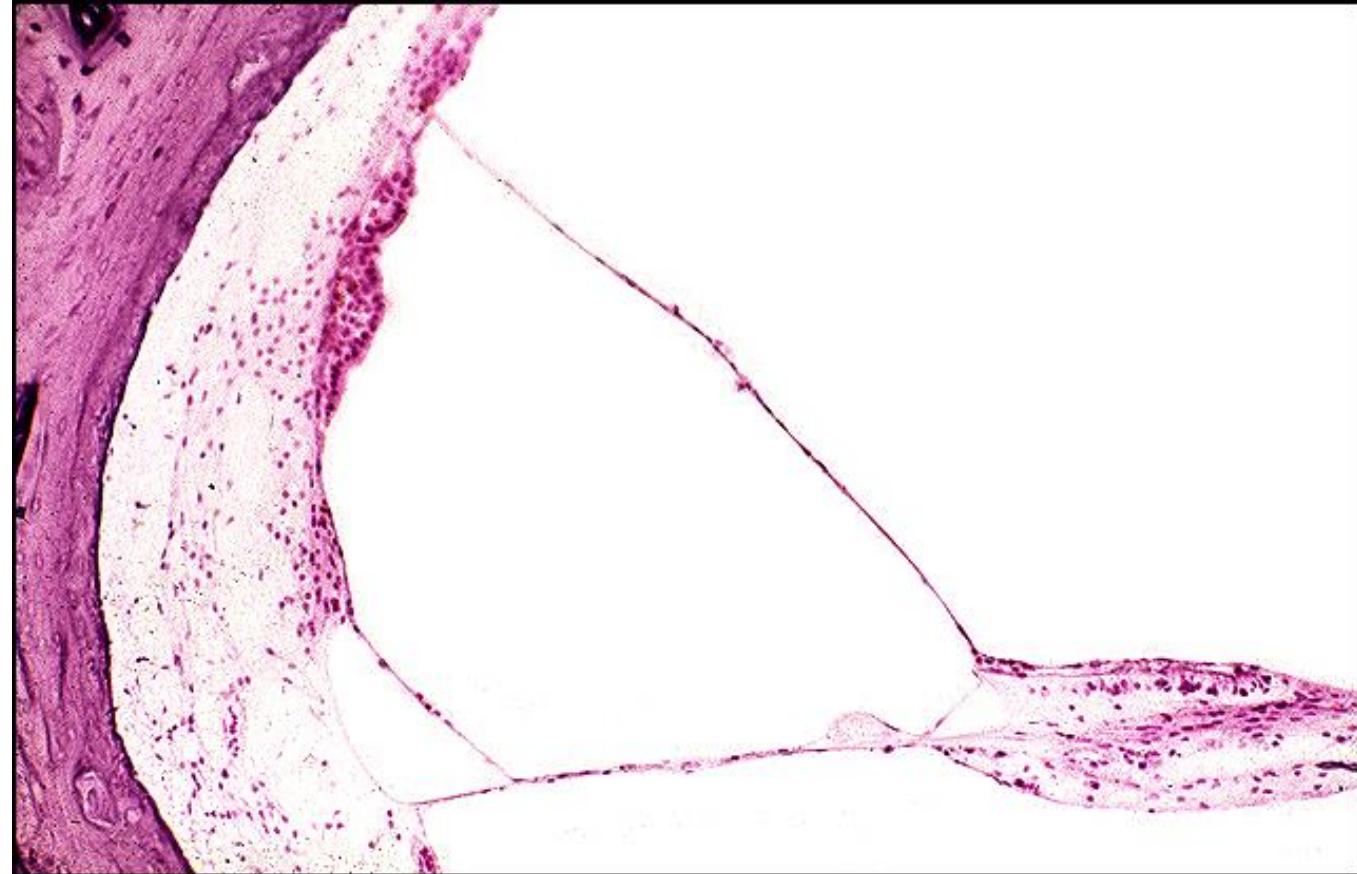
TB Case Number: 846

Gender: Female

Age (yrs.): 92

Otologic Diagnosis:

1. Vestibular neuritis, superior division, left
2. Atrophy of organ of Corti and stria vascularis, apical and basal turns, right
3. Pigmentary deposits, left



Vestibular Neuritis, R-70

Title: Vestibular Neuritis, R-70

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

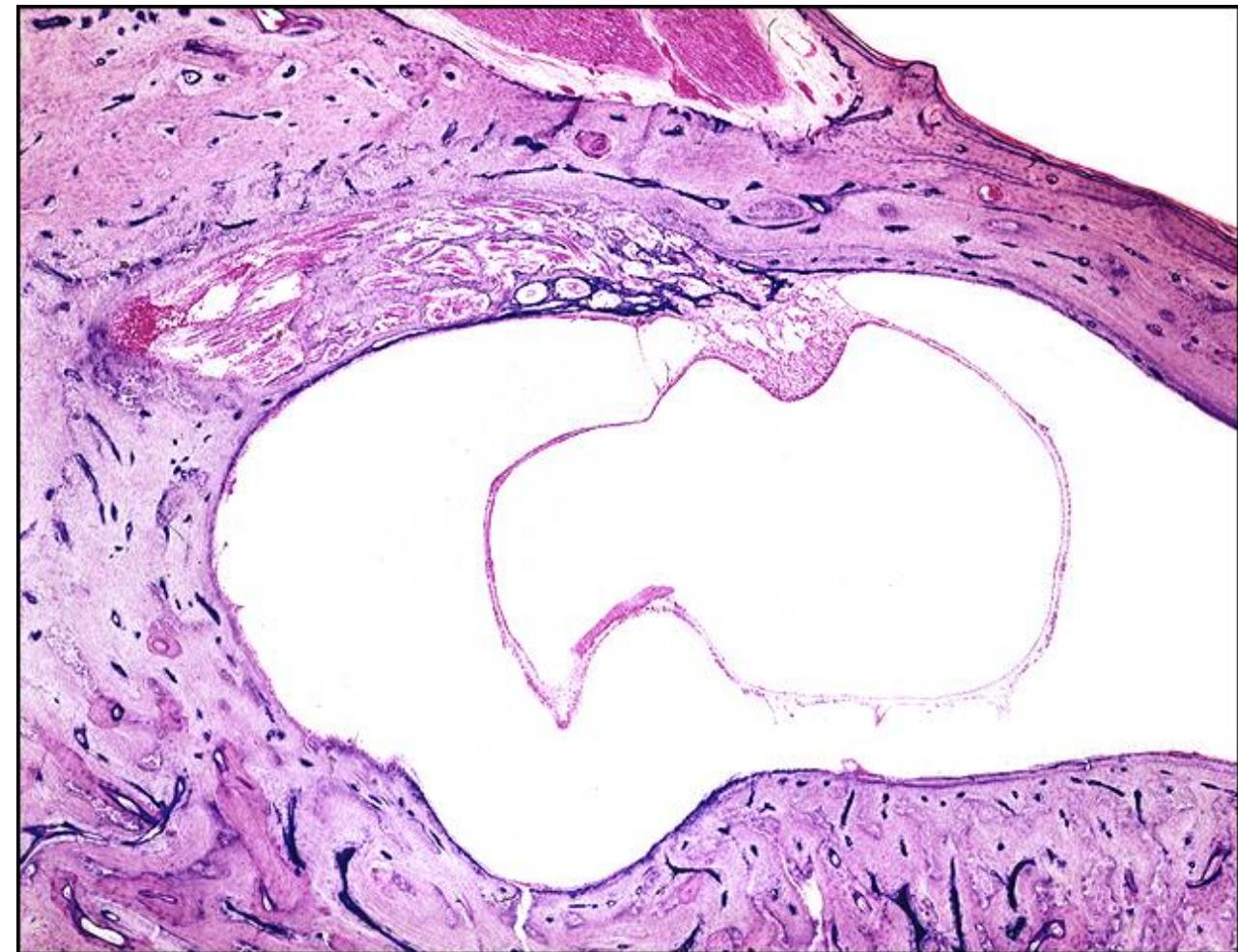
TB Case Number: 846

Gender: Female

Age (yrs.): 92

Otologic Diagnosis:

1. Vestibular neuritis, superior division, left
2. Atrophy of organ of Corti and stria vascularis, apical and basal turns, right
3. Pigmentary deposits, left



Vestibular Neuritis, L-70

Title: Vestibular Neuritis, L-70

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

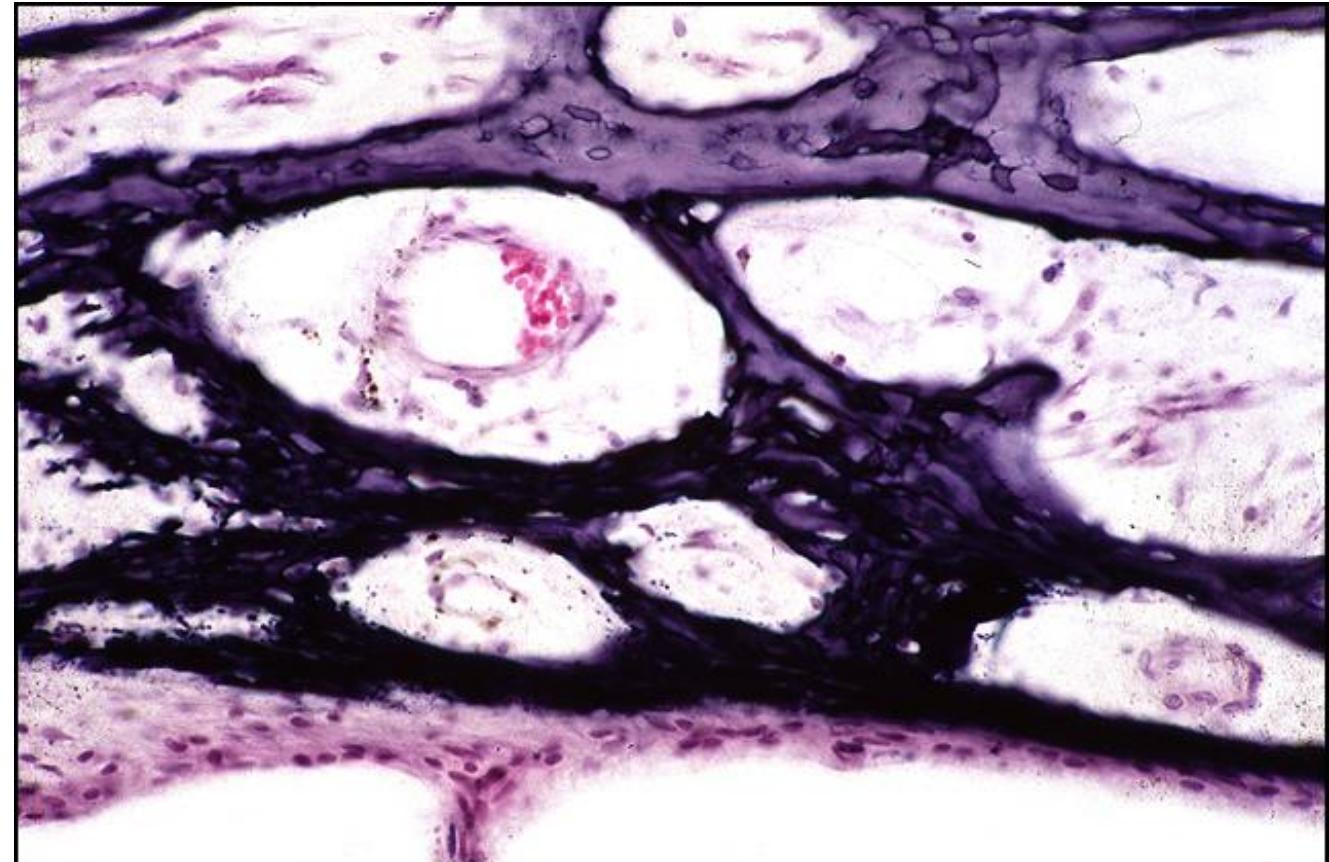
TB Case Number: 846

Gender: Female

Age (yrs.): 92

Otologic Diagnosis:

1. Vestibular neuritis, superior division, left
2. Atrophy of organ of Corti and stria vascularis, apical and basal turns, right
3. Pigmentary deposits, left



Vestibular Neuritis, L-71

Title: Vestibular Neuritis, L-71

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

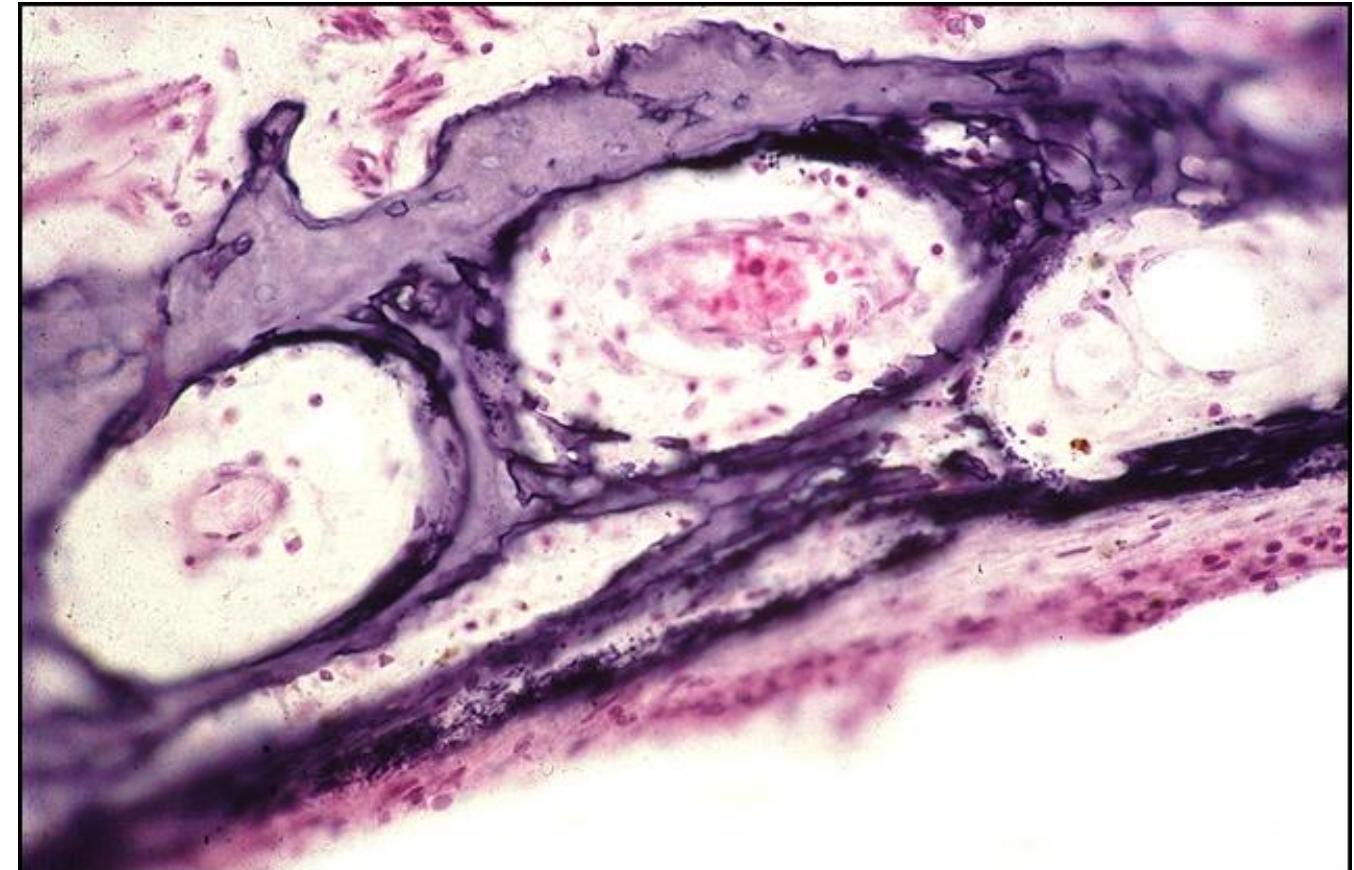
TB Case Number: 846

Gender: Female

Age (yrs.): 92

Otologic Diagnosis:

1. Vestibular neuritis, superior division, left
2. Atrophy of organ of Corti and stria
vascularis, apical and basal turns, right
3. Pigmentary deposits, left



Vestibular Neuritis, R-118

Title: Vestibular Neuritis, R-118

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

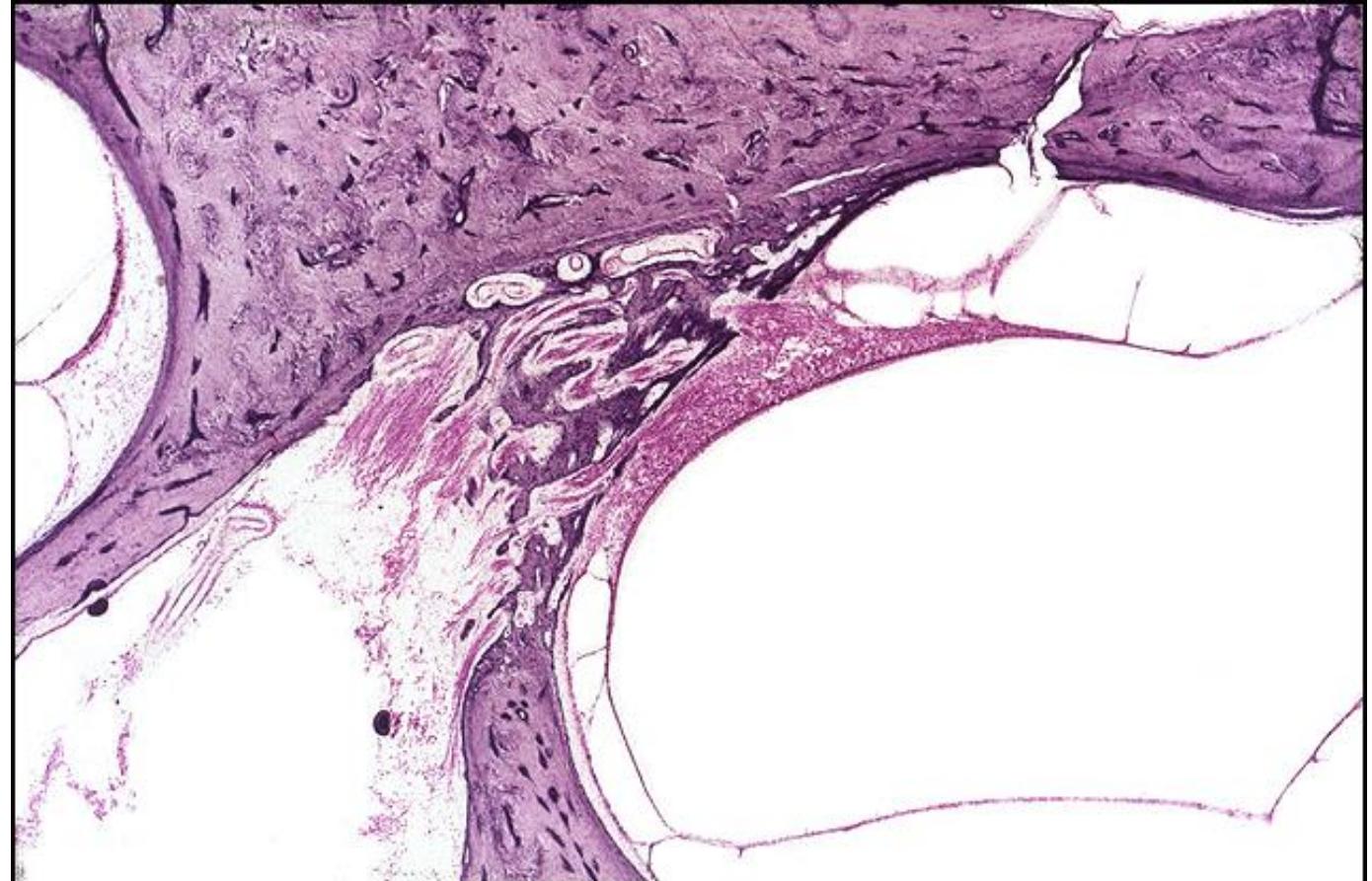
TB Case Number: 678

Gender: Female

Age (yrs.): 87

Otologic Diagnosis:

1. Vestibular neuritis involving the ampullary branch of the superior vestibular nerve and the lateral and superior cristae
2. Atrophy of the spiral ligament, bilateral
3. Primary cochlear neuronal degeneration, bilateral



Vestibular Neuritis, L-71

Title: Vestibular Neuritis, L-71

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

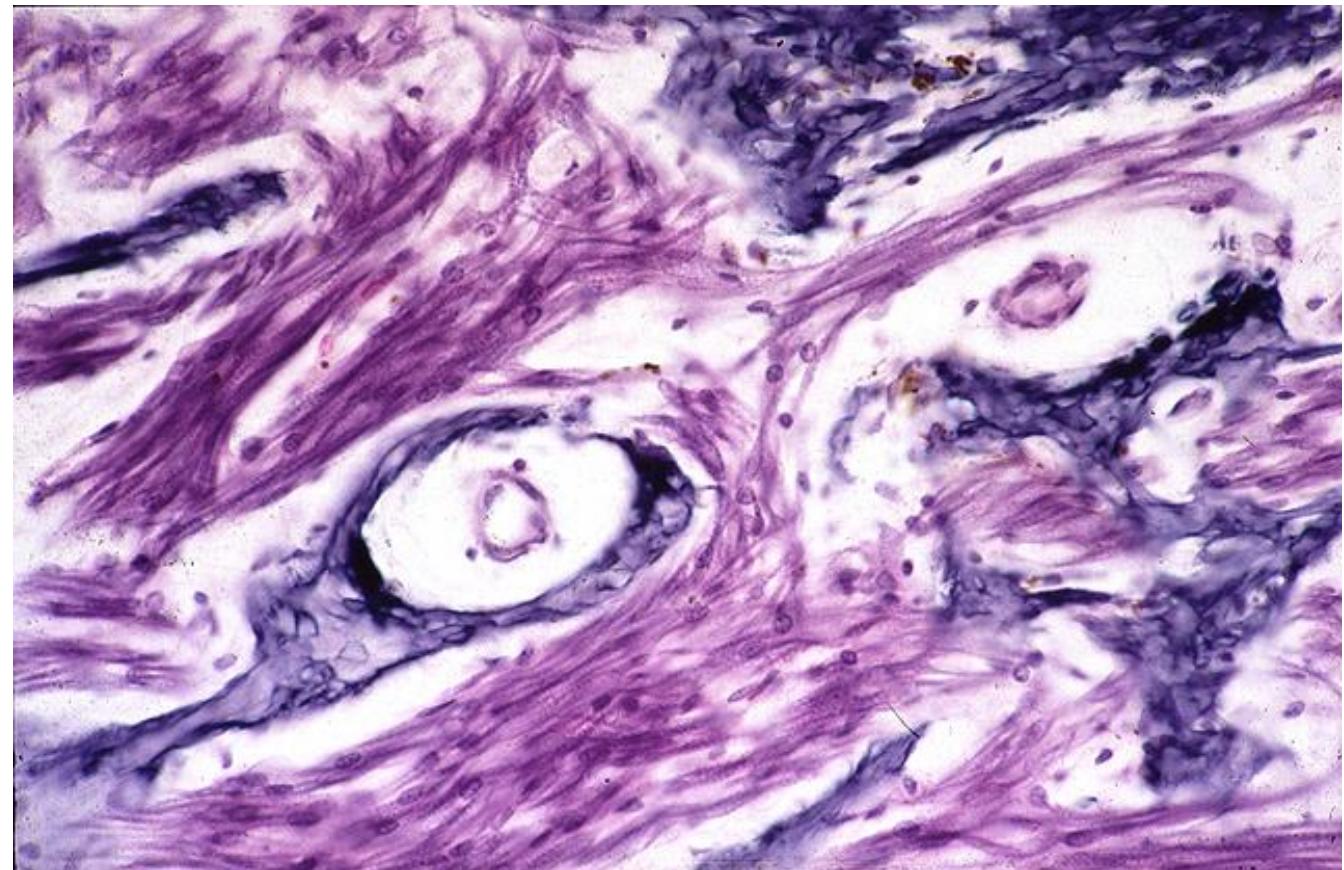
TB Case Number: 678

Gender: Female

Age (yrs.): 87

Otologic Diagnosis:

1. Vestibular neuritis involving the ampullary branch of the superior vestibular nerve and the lateral and superior cristae
2. Atrophy of the spiral ligament, bilateral
3. Primary cochlear neuronal degeneration, bilateral



Vestibular Neuritis, R-63

Title: Vestibular Neuritis, R-63

Chapter: Neural Disorders

Chapter Section: Cranial Neuropathies,
Vestibular Neuritis

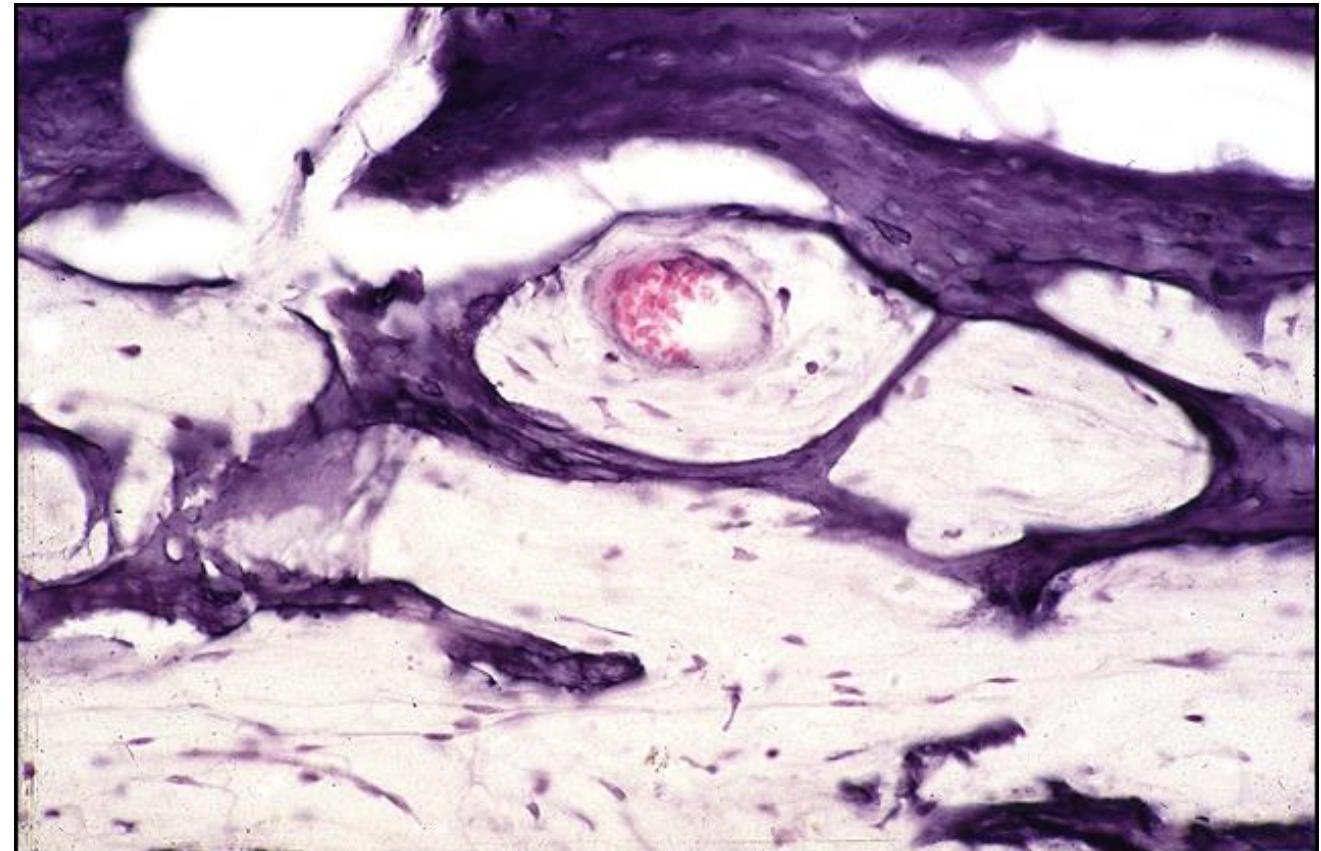
TB Case Number: 678

Gender: Female

Age (yrs.): 87

Otologic Diagnosis:

1. Vestibular neuritis involving the ampullary branch of the superior vestibular nerve and the lateral and superior cristae
2. Atrophy of the spiral ligament, bilateral
3. Primary cochlear neuronal degeneration, bilateral



Chorda Tympani Nerve, L-232

Title: Chorda Tympani Nerve, L-232

Chapter: Neural Disorders

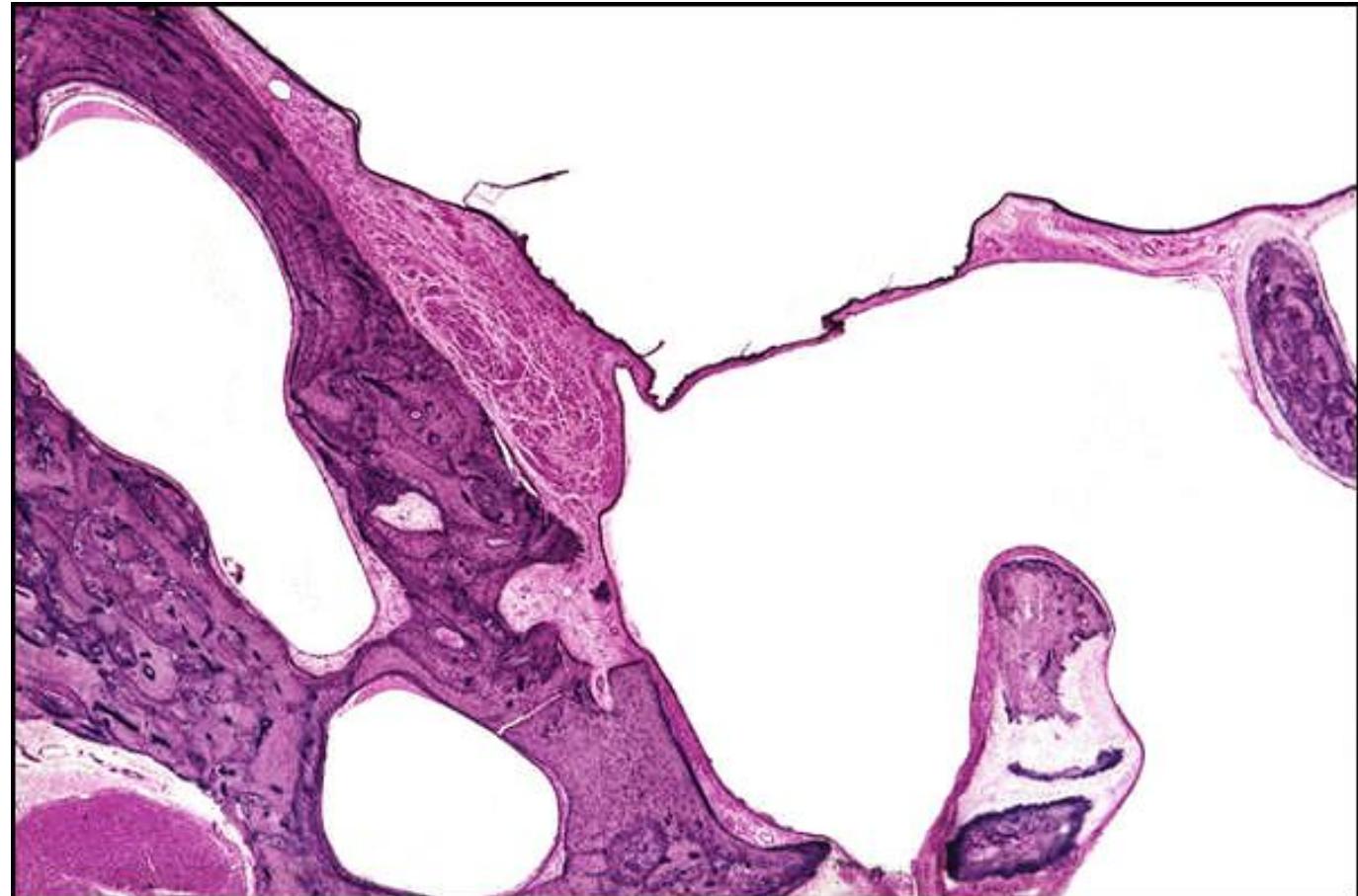
TB Case Number: 489

Gender: Male

Age(yrs.): 50

Otologic Diagnosis:

1. Otosclerosis, clinical, bilateral
2. Stapes footplate, multiple fractures, incurred during stapes mobilization, left
3. Amputation, neuroma, chorda tympani nerve, left
4. Traumatic tear of the saccular wall, left
5. Removal artifact, severe, right



Traumatic Neuroma, L-241

Title: Traumatic Neuroma, L-241

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders,
Other Lesions of the Facial Nerve

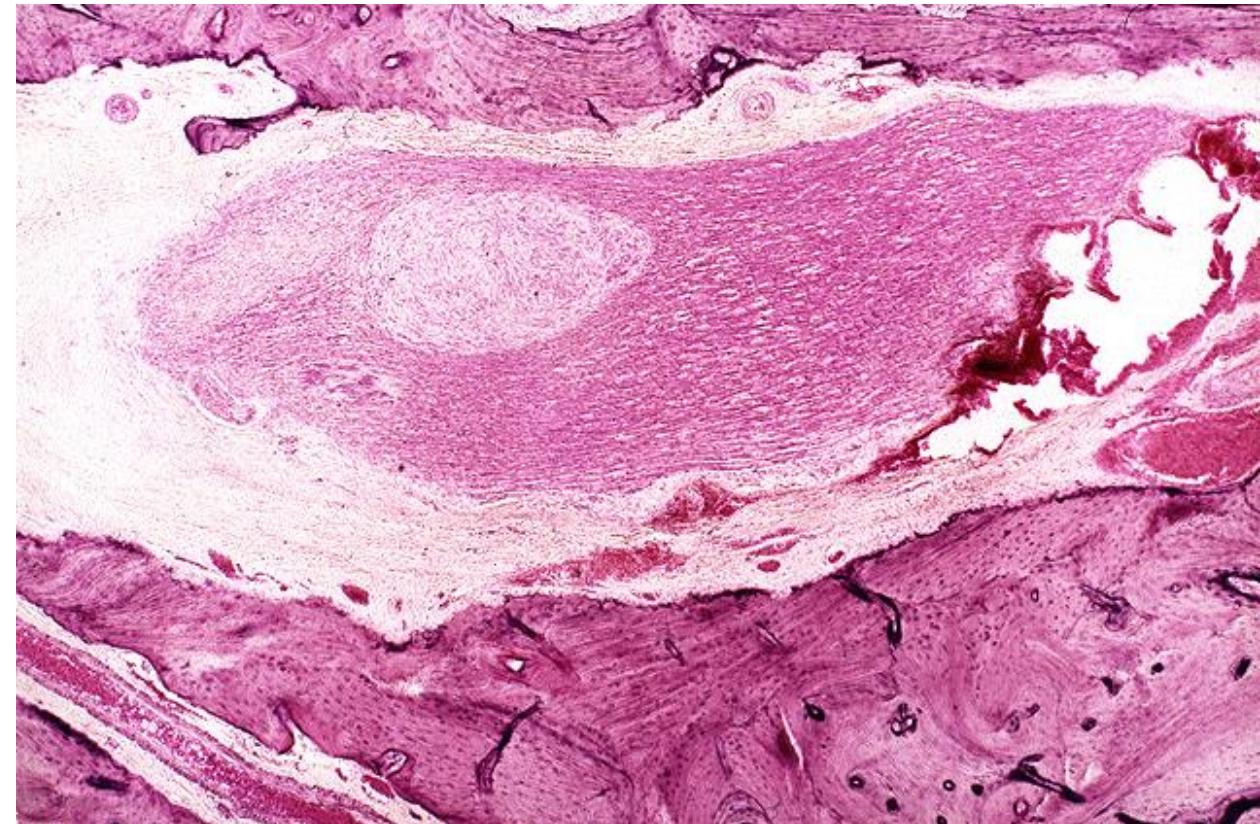
TB Case Number: 158

Gender: Female

Age (yrs.): 67

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoideectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral
6. Malleus, osseous fixation, chronic otitis media, right
7. Malleus and incus, resorptive osteitis, moderate
8. Mastoideectomy, radical, with skin graft, left



Traumatic Neuroma, L-241

Title: Traumatic Neuroma, L-241

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders,

Other Lesions of the Facial Nerve

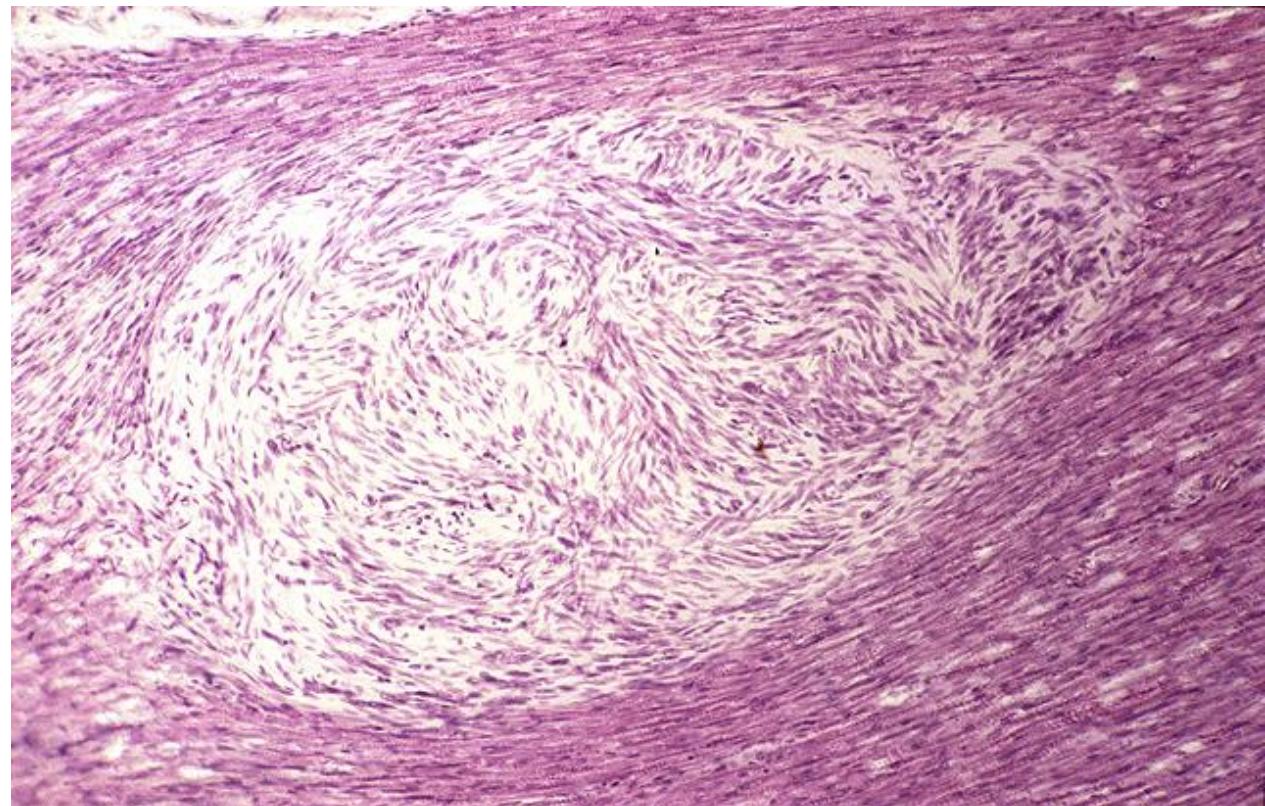
TB Case Number: 158

Gender: Female

Age (yrs.): 67

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoidectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral
6. Malleus, osseous fixation, chronic otitis media, right
7. Malleus and incus, resorptive osteitis, moderate
8. Mastoidectomy, radical, with skin graft, left



Traumatic Neuroma, L-311

Title: Traumatic Neuroma, L-311

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders,
Other Lesions of the Facial Nerve

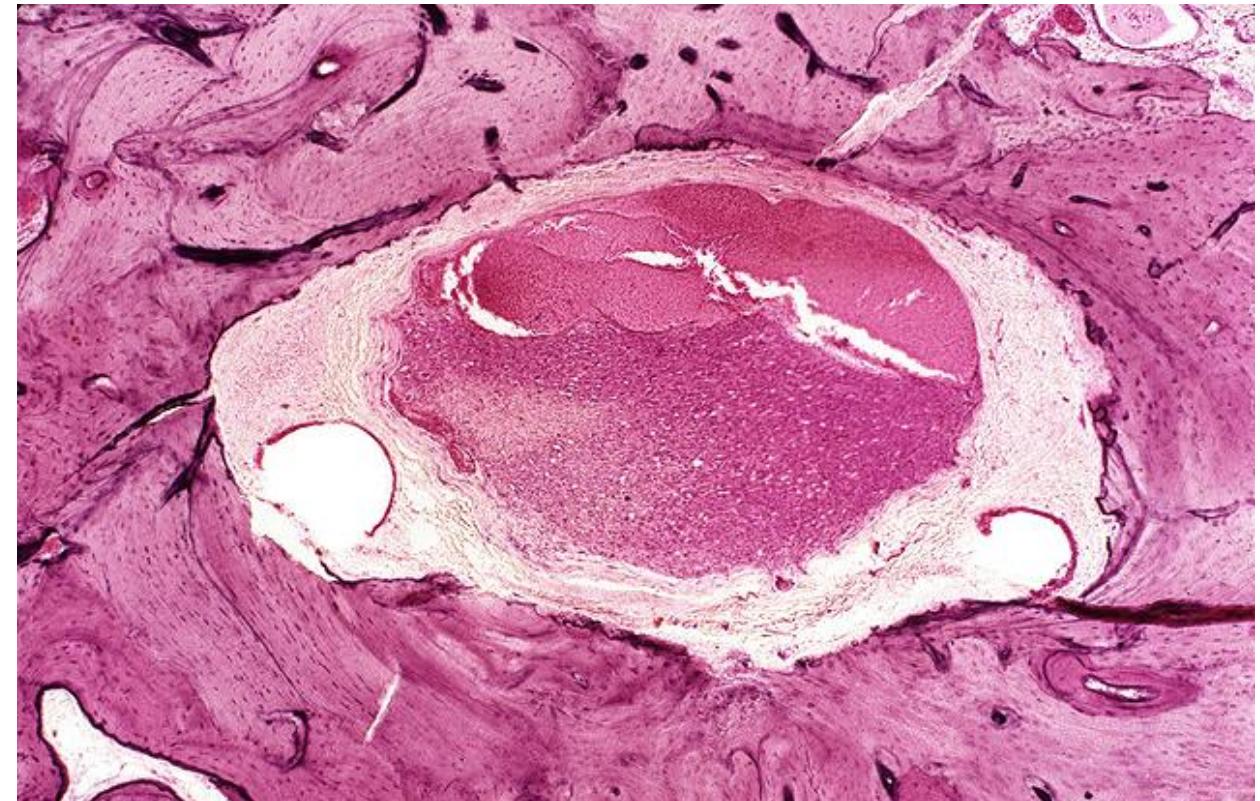
TB Case Number: 158

Gender: Female

Age (yrs.): 67

Otologic Diagnosis:

1. Subarachnoid hemorrhage
2. Otitis media, chronic, suppurative, bilateral
3. Mastoidectomy, modified radical, right
4. Mastoid bowl, granulations, right
5. Tympanic membrane, fibrosis, displacement, bilateral
6. Malleus, osseous fixation, chronic otitis media, right
7. Malleus and incus, resorptive osteitis, moderate
8. Mastoidectomy, radical, with skin graft, left



Cochlear Tympanomastoid Cerebellar Abscess, R-221

Title: Cochlear Tympanomastoid Cerebellar Abscess,
R-221

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders, Other
Lesions of the Facial Nerve

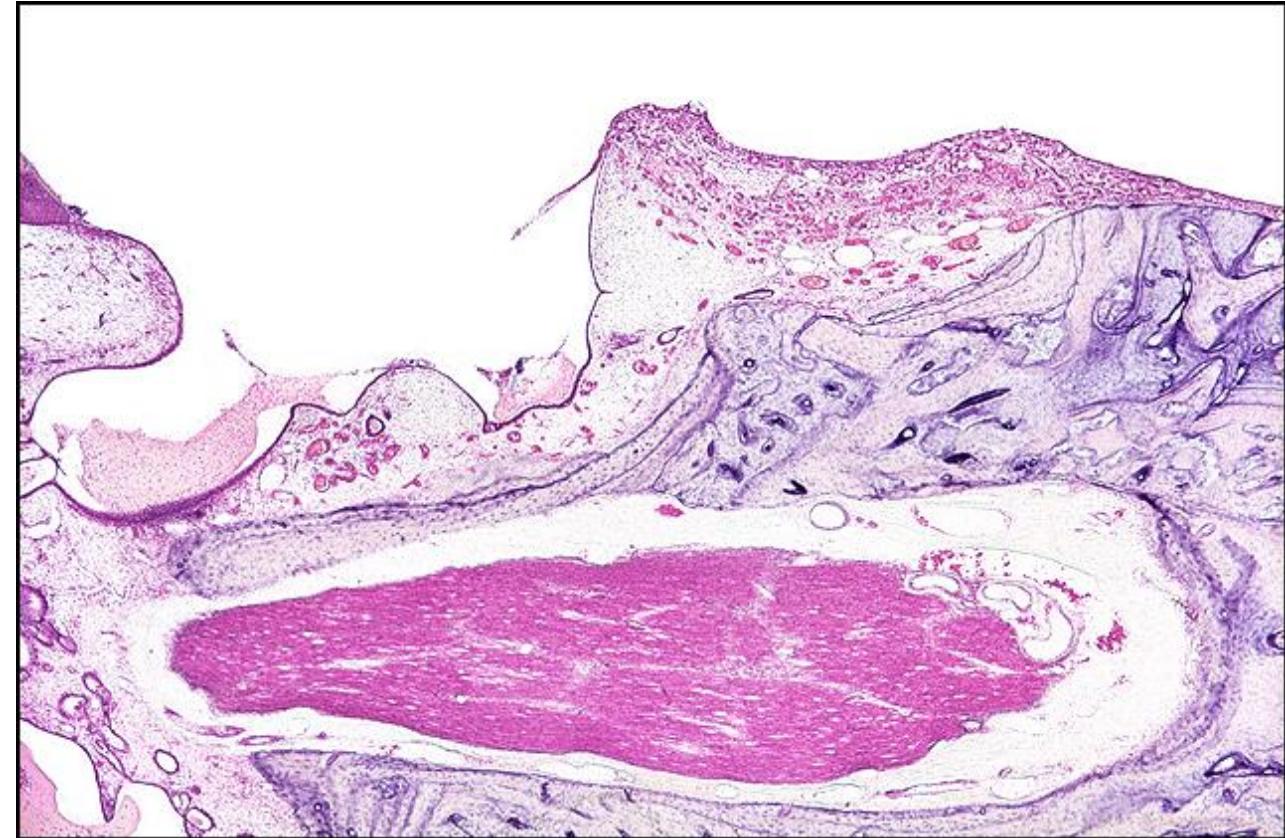
TB Case Number: 829

Gender: Male

Age (yrs.): 16

Otologic Diagnosis:

1. Radical mastoidectomy cavity, recent (3 wks)
2. Thrombosis, lateral venous sinus (by history)
3. Meningitis (PMNs in subarachnoid space of internal auditory canal)
4. Facial nerve, atrophy, mastoid segment



Facial Palsy, R-411

Title: Facial Palsy, R-411

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders, Other Lesions of the Facial Nerve

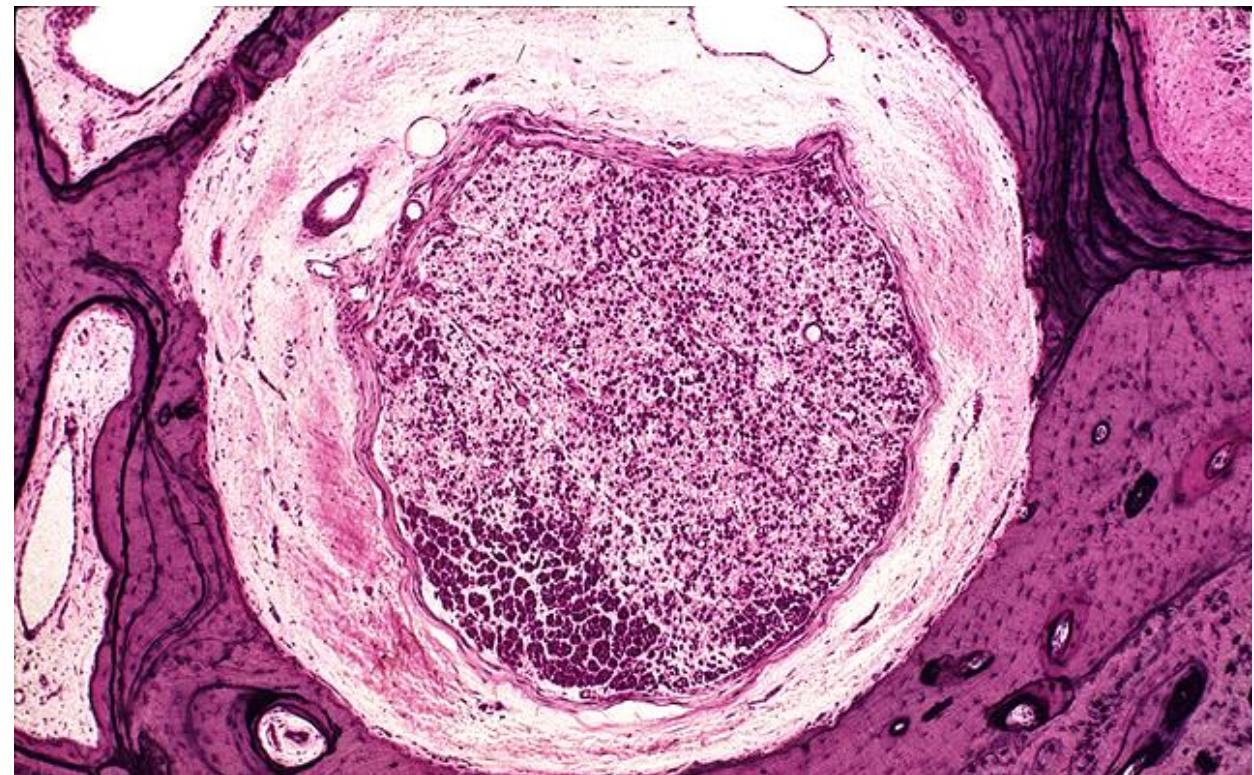
TB Case Number: 176

Gender: Female

Age (yrs.): 50

Otologic Diagnosis:

1. Adenocarcinoma, metastatic, breast, internal auditory canal, right
2. Membranous labyrinth, degeneration, partial, metastatic adenocarcinoma, breast, internal auditory canal, right
3. Facial nerve degeneration, severe, metastatic adenocarcinoma, breast, internal auditory canal, right
4. Otosclerosis, histologic, anterior to oval window, left
5. Osteoporosis, mastoid trabeculae, bilateral
6. Artifact, preparation, compression, membranous labyrinth, bilateral



Meningeal Carcinomatosis, L-161

Title: Meningeal Carcinomatosis, L-161

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders,
Other Lesions of the Facial Nerve

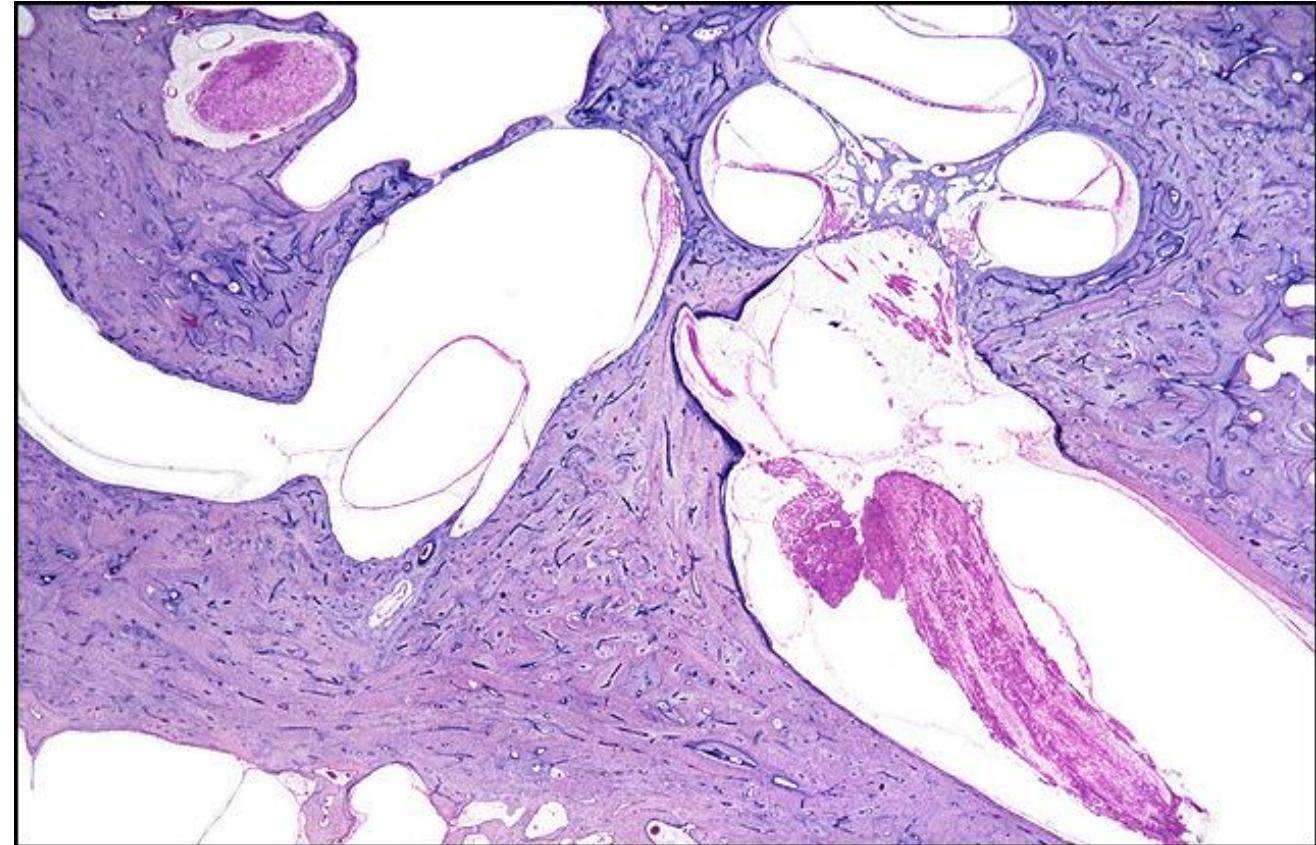
TB Case Number: 376

Gender: Male

Age (yrs.): 57

Otologic Diagnosis:

1. Carcinomatous meningitis with invasion of vestibular, cochlear, and facial nerve trunks
2. Atrophy of the motor divisions of the facial nerves
3. Loss of cochlear sensory cells, mid-basal turns, bilateral, possibly caused by noise exposure
4. Sensorineural hearing loss with loss of organ of Corti, basal turn, cause undetermined (possibly combination of sensory presbycusis, noise exposure, and hereditary influence)



Leukemia, Facial Palsy, L-232

Title: Leukemia, Facial Palsy, L-232

Chapter: Neural Disorders

Chapter Section: Facial Nerve Disorders, Other Lesions of the Facial Nerve

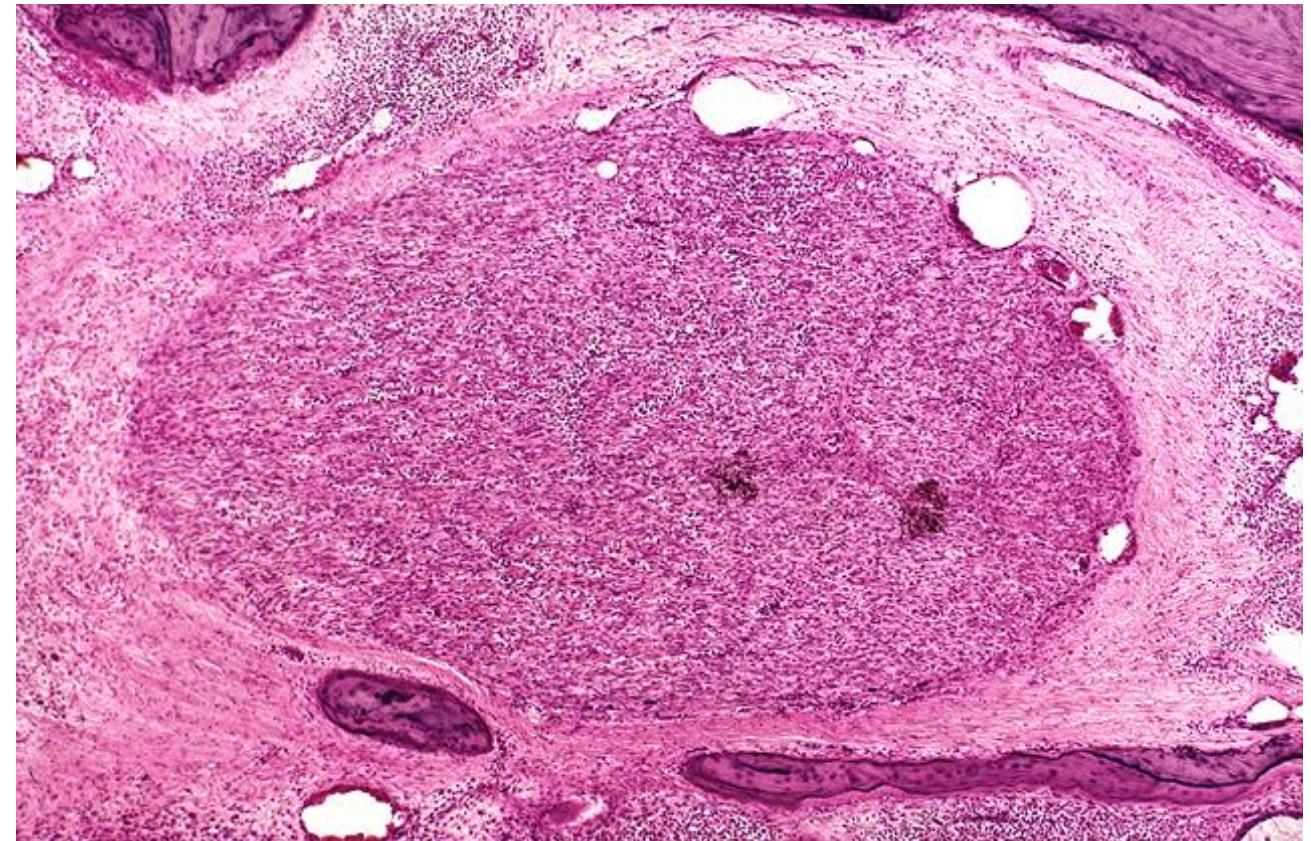
TB Case Number: 242

Gender: Male

Age (yrs.): 49

Otologic Diagnosis:

1. Leukemia, subacute, myelogenous
2. Leukemia, infiltrates, multiple, temporal bone, left
3. Bony labyrinth, degeneration, partial, leukemic infiltrate, left
4. Hydrops, endolymphatic, audiovestibular, severe, leukemia, left
5. Membranous labyrinth, degeneration, severe, leukemia, left
6. Facial nerve, degeneration, severe, leukemia, left





Mass General Brigham
Mass Eye and Ear