

HEARING LOSS

Epidemiology

- Hearing loss is the most common sensory impairment in older adults: over 33% of people over age 65 and 50% of those over age 85 have some hearing loss.
- Hearing loss has a negative impact on health, cognitive and functional status, and psychological well-being.

Etiology

- Presbycusis: high frequency, sensori-neural hearing loss, gradual in onset, progressive, bilateral and symmetrical.
- Conductive hearing loss: cerumen impaction, acute/chronic otitis media, cholesteatoma, otosclerosis, trauma, Paget's disease of bones (ossicles)

History (patient and family)

- Are there any changes in patient's hearing?
- Are symptoms unilateral or bilateral?
- Has there been prior treatment for hearing loss?
- Does the patient have difficulty understanding women and children?
- Does the patient have difficulty understanding telephone conversations, television or speech when more than one person is speaking?
- Will the patient accept treatment?

Physical Examination

- Inspect the auditory canal(?cerumen impaction)
- Whisper test or scratch test-sensitivity/specificity 70-100%
- Hand held audioscope screening (performance is dependent on skill of operator)
- Hearing Handicap Inventory for Elderly
- Screening (HHIE-S)-identifies hearing loss and interest in rehabilitation
- Audiology referral

Treatment

- Hearing aids are helpful for sensori-neural hearing loss to amplify sound (binaural are preferable)
- Compliance is a challenge (stigma associated, high cost is not covered by Medicare)
- Audio assisted listening devices (pocket amplifiers, telephone and television amplifiers)

VISION LOSS

Epidemiology

- About 21% of people over age 75 have vision worse than 20/40; 28% of people over age 85 have visual impairment even with corrective lenses.
- From age 65 on there is a steady decrease in visual acuity, contrast sensitivity, glare tolerance and visual fields.
- Visual impairment is an independent risk factor for falls and significantly affects quality of life.

Common Vision Impairments

- Cataracts (clouding of the crystalline lens): painless, progressive loss of vision; unilateral or bilateral.
- Macular degeneration (caused by changes in retinal pigmented epithelium): leading cause of central vision loss in older adults.
- Glaucoma (increased intraocular pressure, atrophy and cupping of the optic nerve head, visual field deficits): 95%

open angle; 5% angle closure.

- Diabetic retinopathy (background retinopathy, proliferative retinopathy): is associated with the duration of the disease.

History (patient and family)

- Sudden (central, partial, or complete) or gradual changes in vision
- Diplopia

Physical Examination

- Evaluate external structures
- Check reflexes and extra-ocular movements

- Difficulty driving (glare, night vision problems)
- Occupational or lifestyle restrictions.
- Inspect lens, retina, optic cup
- Check visual acuity

Treatment

- Refer to ophthalmologist (to improve quality of exam and for glaucoma screening)
- Cataracts: surgery if compromising function
- Macular degeneration: ablation by heavy laser burns
- Glaucoma: Miotic, epinephrine, beta blockers, carbonic anhydrase inhibitors
- Diabetic retinopathy: tight diabetic control (?), laser photocoagulation

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