

FALLS IN THE ELDERLY

❖ Epidemiology of non-syncopal falls

- an event that results in a person inadvertently coming to rest on the ground or other lower level (*not* as a result of loss of consciousness).
- Common: one-third of community-dwelling elderly and 50% of institutionalized elderly fall; 50% who fall do so more than once.
- Mortal and morbid: accidents are the seventh leading cause of death in the elderly, and such accidents are mostly due to falls (men >> women); 5-10% of falls result in serious soft-tissue injury; 5% result in fracture, 1% result in hip fracture; 3% of fallers have a long lie, 50% can't get up without help; 40-73% of fallers develop fear of falling, 41-43% curtail activities; falls are a strong predictor for NH placement.

❖ Pathophysiology

- almost always multifactorial involving an interaction of intrinsic and environmental factors.
- Intrinsic factors: sensory deficits, orthostatic hypotension, gait and balance changes, musculoskeletal changes, cognitive impairment and medications.
- Environmental factors: poor lighting, clutter, loose rugs, ill-fitting clothes, wires, wet floors, etc.

❖ History

- What, where, when, why? (including environment)
- Premonitory symptoms?
- Problems with gait and balance?
- Incontinence? (slip and fall)
- Chest pain? (arrhythmia or ischemia)
- Hearing, eyesight, sensation, memory problems, depression
- Drug/ETOH abuse?
- Ask family.
- Medications—over-the-counter and prescribed

❖ Physical exam

- Postural BP
- Skin for turgor
- HEENT—visual acuity, gaze preference, nystagmus, visual fields, hearing, carotid bruits, ROM at neck
- Chest—rales, egophony
- Cardiac—AS murmur, arrhythmia, gallops
- Extremities—corns, calluses, bunions, long nails, ill-fitting or assym worn shoes, ulcers
- Neuro—MSE, focal motor deficits, proprioception and vibration, "Get Up and Go Test" or Tinetti gait and balance assessment

❖ Labs and diagnostic evaluation (as indicated by sx/signs)

- CBC—infection, anemia

❖ Management

- Ask questions about falls routinely

- Electrolytes, BUN, creatinine—volume status
- Glucose—diabetes or hypoglycemia
- Calcium—delirium
- Vitamin B₁₂—peripheral neuropathy, dementia
- Thyroid function tests
- Urinalysis—R/O infection PRN
- Electrocardiogram—arrhythmia, MI
- Chest x-ray—CHF, pneumonia
- CT/MRI Head—SDH, hydrocephalus, tumor
- Toxicology screen and ETOH level PRN
- Echocardiogram—valvular lesion if suspected
- Weigh risks and benefits of meds
- Review all over-the-counter and prescription meds
- Treat orthostatic hypotension:adjust meds, mineralocorticoids, graded-pressure hose
- PT and OT for assistive devices and gait training
- Strength and balance training
- Instruct patient how to arise from a fall
- Home assessment for environmental hazards

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