Common Eye Problems of the Elderly

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Cataracts

A loss of the natural clarity and transparency of the lens inside the eye, usually caused by aging but also by some systemic diseases and trauma to the eye. Cataracts cause blurriness, "filminess" and glare to vision.

Nuclear Sclerotic Cataract (NSC)

Most common type of cataract among the elderly.

Other examples of cataracts

Posterior Subcapsular Cataract (PSC) - Occurs younger in life
Cortical Cataract - Less bothersome to patients
Mature cataract

The lens inside the eye can completely cloud over, causing profound vision loss. These mature cataracts are sometimes found in the nursing home population.

Cataract surgery with Intraocular Lens Implantation

Pseudophakia

Pseud= False
Phakia= Lens
Or a “false lens” implanted in the eye
Posterior Capsular Opacification (PCO)

A clouding or overgrowth of the clear membrane behind the implant, causing a return of blurry, cloudy vision. Occurs months to years after the cataract removal, in about half of all patients.

YAG Capsulotomy

A laser is used to zap a hole in the cloudy posterior capsule to give clear vision back.

Cataract Takeaways

- Cataracts happen to everyone eventually.
- There are different types of cataracts that affect different people differently.
- Cataract surgery is safe and effective, provided the patient is healthy enough and cognitively able to have the surgery.
- Capsulotomies are needed in about half of all cataract surgery cases to clear up the clouding of the capsule inside the eye, and occur months to years after the cataract removal.
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Age-Related Macular Degeneration (AMD)

The leading cause of vision loss in the elderly, with 10 million cases in the US.

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Normal retina (Fundus)

- The macula is the pinhead-sized area of sharpest vision in the center of the retina.
- The fovea is the center of the macula.
- When you look at something, you are focusing your image on the macula.

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Macular Degeneration (AMD)

The causes are not completely understood, but the cells of the macula begin to break down and degenerate.
- Also waste products begin to deposit on and around the macula (Drusen).
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Causes of AMD

- Genes - Trait that can be tested
  - Race: Caucasian, Scandinavians, and Northern Europeans
  - Smoking: Doubles the risk
  - Age 60+: 2% risk
  - Age 75+: 30% risk

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Dry vs. Wet AMD

(Nonexudative vs. exudative)

- Vessels break down and eventually begin to bleed, vision loss is profound
- Dry AMD is 90%+ of all types
- All AMD begins as dry, can progress to wet

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Dry AMD Treatments

Unfortunately there are no cures for AMD; the goal is slow the decline

- Mainstay is macular nutritional supplements containing zinc, beta carotene, lutein, etc.
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Wet AMD Treatment

One of the most promising new treatments for wet AMD are anti-VEGF medications, which dry up the new blood vessel growth responsible for wet AMD. These injections are typically given every 2-3 months.

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Macular Degeneration Takeaways

- AMD is the leading cause of blindness in people over 70; is considered incurable. Goal is to limit/stabilize vision loss.
- Dry form is 90%+ of all AMD; vision can range from mild impairment to profound vision loss.
- Mainstay of treatment for dry type is nutritional supplements that support macular health; because they are OTC, compliance can be problematic.
- Treatment for wet type are monthly injections in the eye that dry up the blood supply to the area.

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Diabetes and Eye Disease
Diabetic Retinopathy is leading cause of blindness in the U.S. for all age groups.

- DM approximately 10% of general population (is approx. 20% of my patient base)
- CDC: 28.5% of all DM patients will develop some form of diabetic retinopathy (DR), but 100% are at risk. Only 65% of all DM patients receive an annual dilated eye health exam.
- 90-95% are Type II

Diabetic Retinopathy (DR)

- Microangiopathy and capillary occlusion cause small hemorrhages, exudate and edema

Non-proliferative vs. Proliferative

- Non-proliferative DR can often be monitored
- Proliferative DR must be treated
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Diabetic Laser Treatment

Most common treatment is Laser Pan-retinal photocoagulation (PRP) to “spot weld” leaking blood vessels. This obliterates vision in this area but keeps the DR from getting worse.

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Diabetic Cataracts

Diabetics get cataracts younger than the general population, and their cataracts can seriously affect vision.

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PREVENTION IS KEY!

Diabetic Retinopathy is the leading cause of blindness in all ages, yet is preventable.

All DM residents should be receiving annual dilated eye exams.
Annual dilated DM exams are standard of care for:

- American Diabetes Association
- American Optometric Association
- American Academy of Ophthalmology
- Centers for Medicare and Medicaid Services (CMS)

Medicare Alphabet Soup

MACRA - Medicare Access and CHIP Reauthorization Act of 2015
MIPS - Merit-Based Incentive Payment System
Changing the way providers get paid
Diabetes Takeaways:

- Diabetics comprise a large part of the nursing home population, and is only going to get bigger.
- Diabetic Retinopathy is the leading cause of blindness in the U.S.
- 35% of all diabetics will develop some form of DR, yet 100% of it is preventable.
- All your residents should be having annual dilated eye health exams, not just the ones on dental/vision plans.
- If you need help getting in compliance, call us.

GLAUCOMA

- Normal Eye
- Glaucoma Eye

Glaucoma causes damage to the Optic Nerve.

- Healthy Optic Nerve
- Optic Nerve In Eye with Glaucoma
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**Glaucoma**

1. Accounts for 2 million cases per year
2. African Americans have highest risk of morbidity
3. Increased pressure in the eyes leads to nerve damage
4. Can't detect symptoms early on—“Silent thief of sight”
5. Patients must be checked for glaucoma to diagnose it

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**Treatment Options**

Eye drops lower the pressure in the eyes
Self-administration can be problematic, especially among the elderly
Some patients may not take eye drops regularly

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**Glaucoma Takeaways**

- Glaucoma one of the leading causes of blindness among the elderly
- African Americans at highest risk
- "Silent thief of sight"
- Proper administration of eye drops can be a problem in nursing homes
Other Eye Problems: Infections

Infections (conjunctivitis) in nursing homes tend to be much more chronic and recurrent. Most PCPs do not prescribe meds strong enough, for long enough.

Dry Eyes

Dry eyes are a major problem among elderly. Tear production decreases with age:

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100 - \text{age} = \% \text{ of tears compared to age 18}
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Strokes, Bell’s Palsy, Parkinson’s all can cause infrequent/incomplete blinking that furthers the problem. Artificial tears are extremely important to these patients, yet proper administration is a major problem in nursing homes.

Takeaways

- Infections (conjunctivitis) tend to be very chronic and recurrent
- Dry eyes are a major problem among the elderly, and can be quite debilitating to comfort and vision of the resident
- Consistent instillation of drops as directed is key to success
Regardless of cognitive status, we are able to examine most all patients for glasses. Patients do not need to be able to respond to us in order to receive a comprehensive vision and eye health exam.

If we can help you in any way, please contact us:

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Thank You!