


Optometric Education Consultants

OCT Red, Yellow, and Blue Disease What is Real Disease and What is Physiologically Normal


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OCT Interpretation

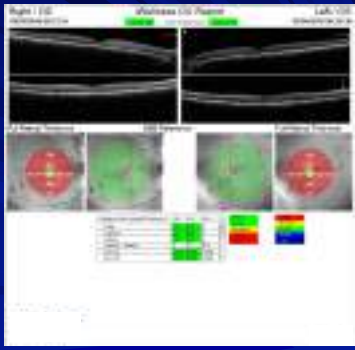
~ Concepts discussed in this lecture can be applied to any OCT platform

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Poll 1

This OCT is most likely

Real Disease
or
Physiologically Normal

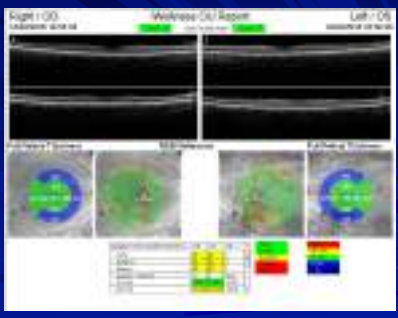


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Poll 2

This OCT is most likely

Real Disease
or
Physiologically Normal

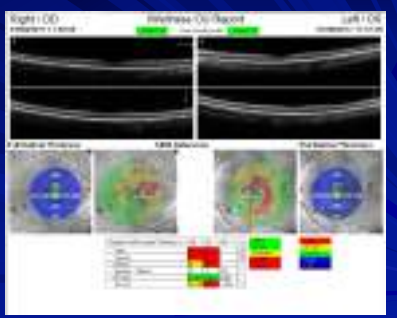


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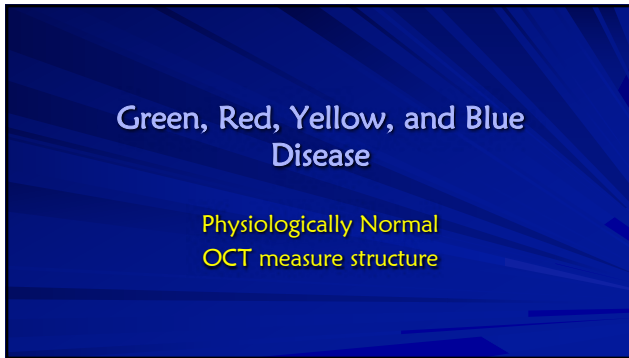
Poll 3

This OCT is most likely

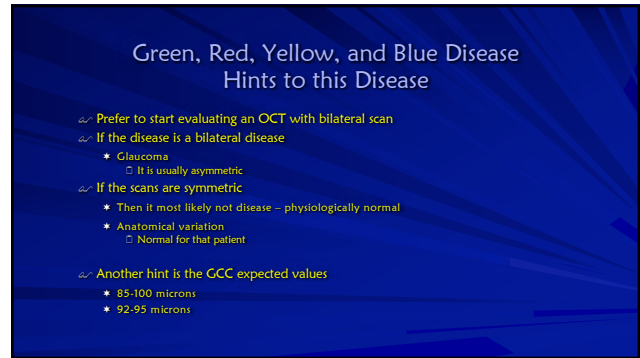
Real Disease
or
Physiologically Normal



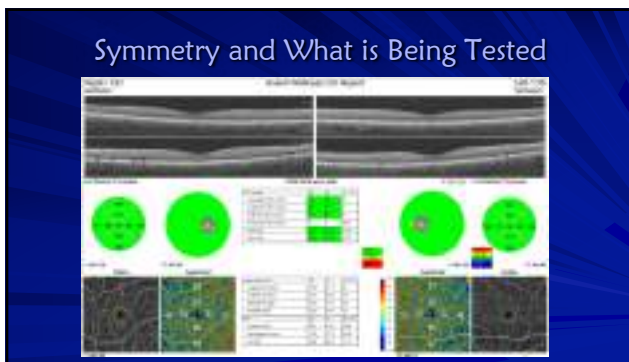
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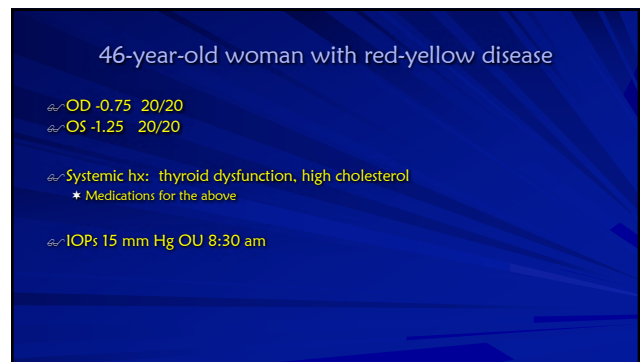
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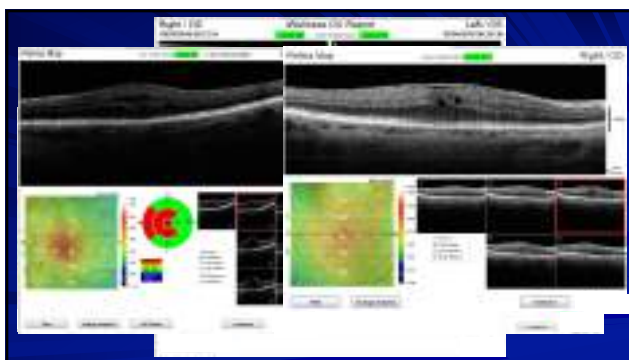
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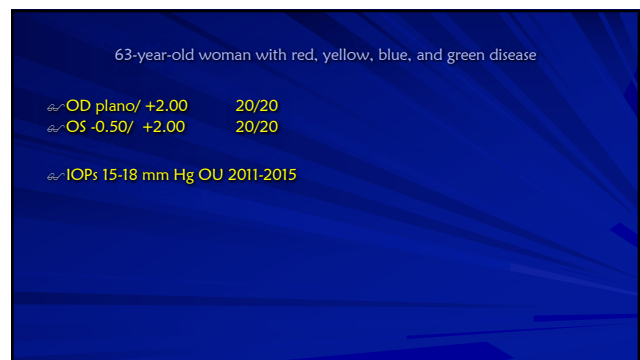
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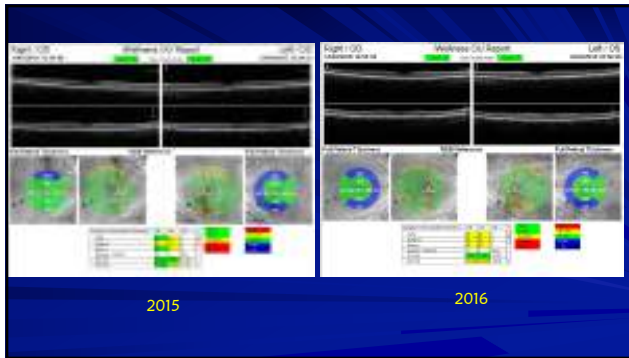
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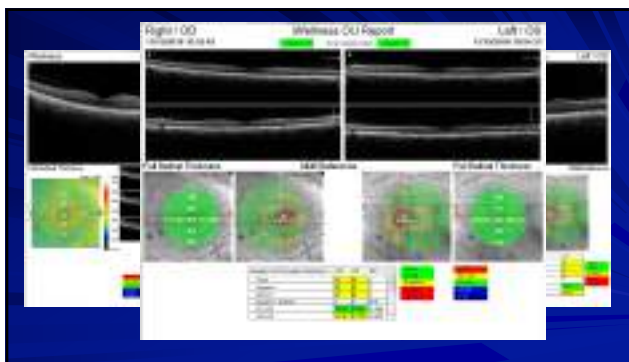
58-year-old with yellow disease

OD +1.00 20/20
 OS +1.25 20/20

IOPs: 13/15 mm Hg at 11:24 am

(pay attention to FLV and GLV)

20



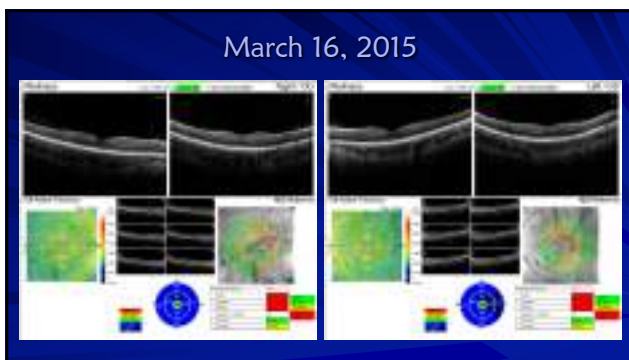
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40 yo man with red, blue, green disease

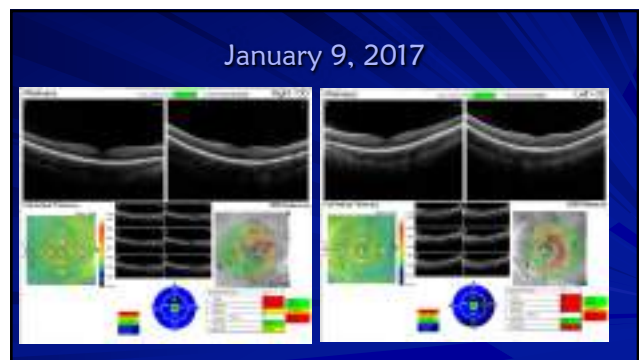
OD -7.50 - 0.75 x 110 20/20
 OS -7.50 - 0.75 x 105 20/20

IOPs: 15/13 mm Hg at 6:30 pm

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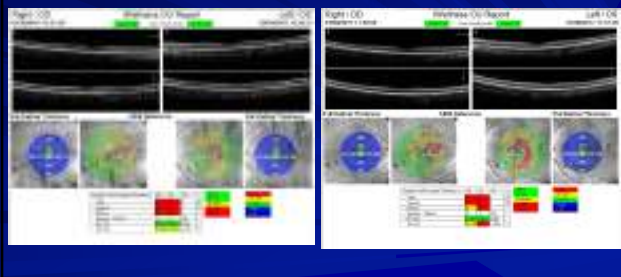


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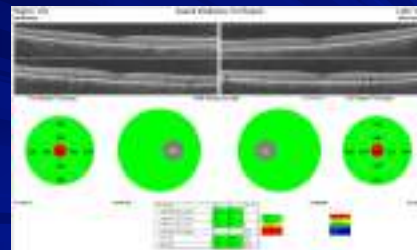
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22 months apart



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28-year-old man with myopia



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Green, Red, Yellow, and Blue
Disease

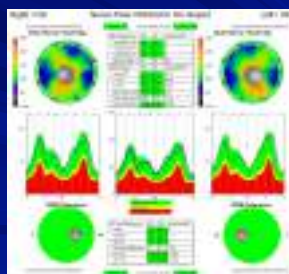
Real Disease

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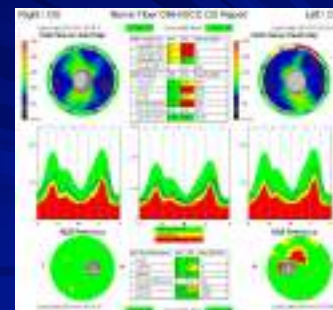
Glaucoma

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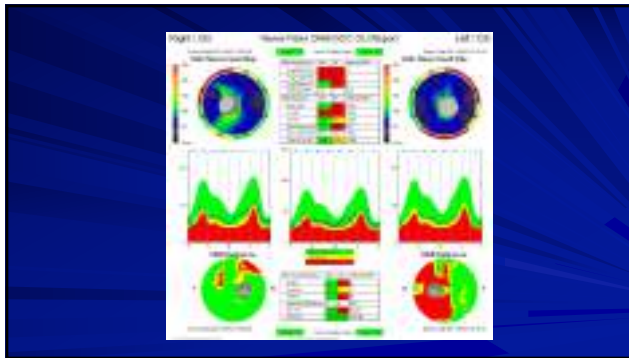
NFL and GCC



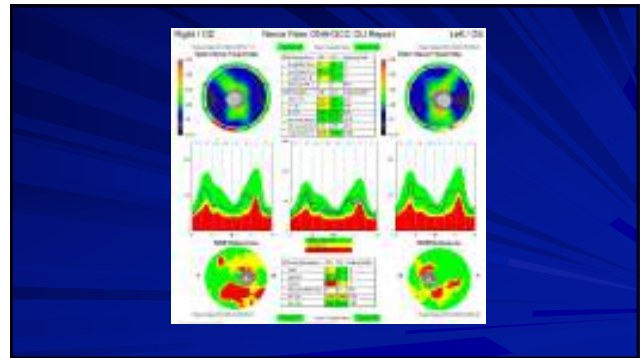
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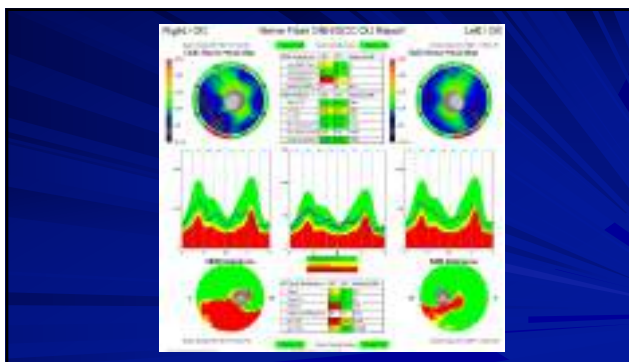
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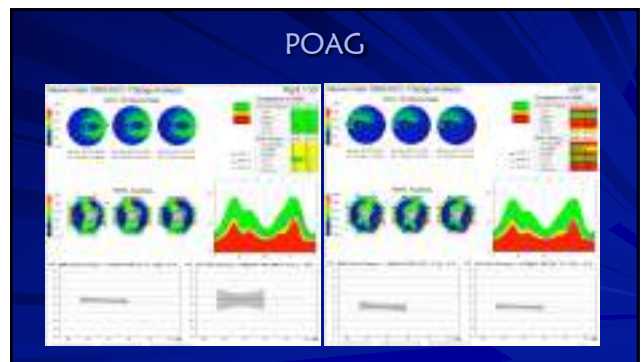
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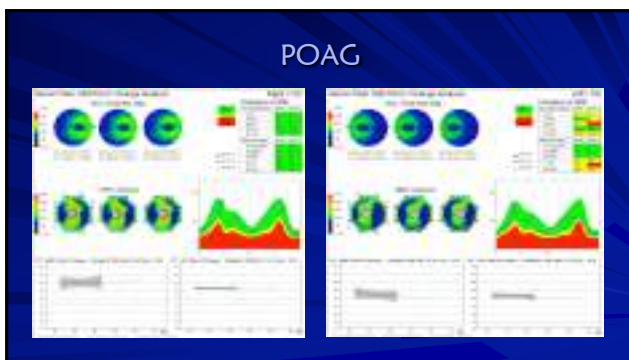
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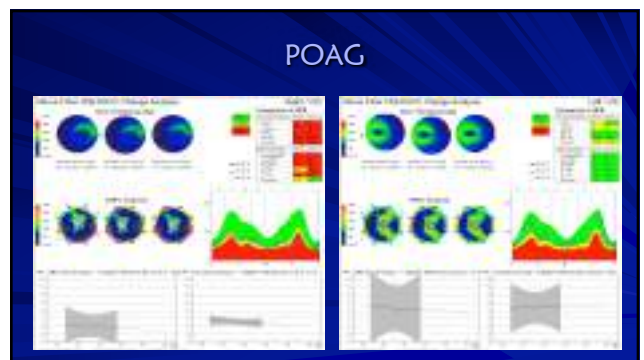
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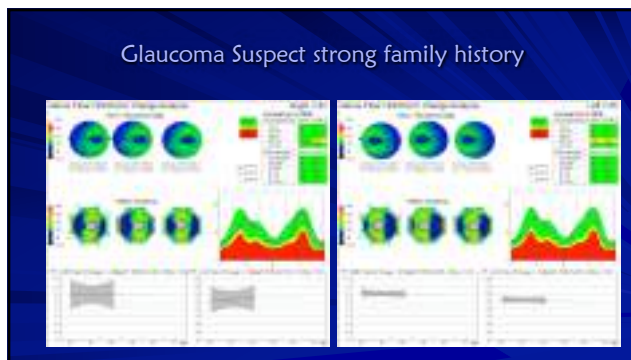
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The International Vitreomacular Traction Scale: Group Classification of Vitreomacular Adhesions, Traction, and Macular Hole

Main Outcome Measures: Optical coherence tomography-based anatomic definitions and classification of vitreomacular adhesions, vitreomacular traction (VMT), and macular holes.

Results: Vitreomacular adhesion is defined as perfoveolar vitreous deposition with remaining vitreomacular attachment and unperforated foveal neuroepithelial features. It is an OCT finding that is almost always the result of normal vitreous aging, which may lead to pathologic conditions. Vitreomacular traction is characterized by perfoveolar posterior vitreous detachment accompanied by anatomic distortion of the fovea, which may include pseudopyknops, macular edema, cystoid macular edema, and subretinal fluid. Vitreomacular traction can be sub-classified by the diameter of vitreous attachment to the macular surface as measured by OCT. VMT attachment of 1500 µm or less defined as focal and attachment of more than 1500 µm as broad. When associated with other macular disease, VMT is classified as concurrent. Full-thickness macular hole (FTMH) is defined as a foveal lesion with interruption of all retinal layers from the internal limiting membrane to the retinal pigment epithelium. Full-thickness macular hole is primary if caused by vitreous traction or secondary if directly the result of pathology characteristic other than VMT. Full-thickness macular hole is subclassified by size of the hole as determined by OCT and the presence or absence of VMT.

Conclusions: This classification system will support systematic diagnosis and management by creating a clinically applicable system that is predictive of therapeutic outcomes and is useful for the resolution and analysis of clinical studies.

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VMA versus VMT
Focal or Broad Attachment

Table 1. Classification of VMT

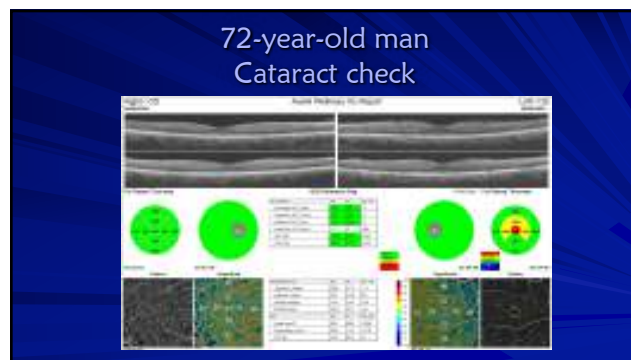
Table 2. Classification of FTMH

Table 3. Classification of VMA

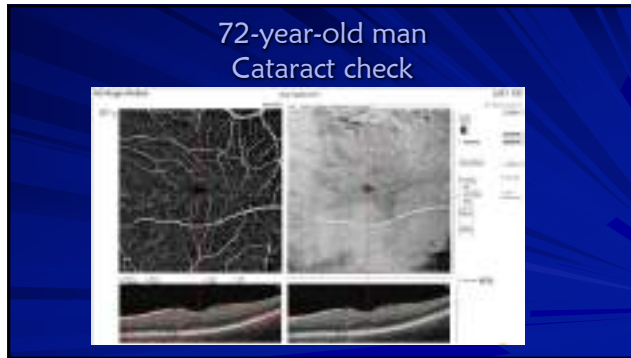
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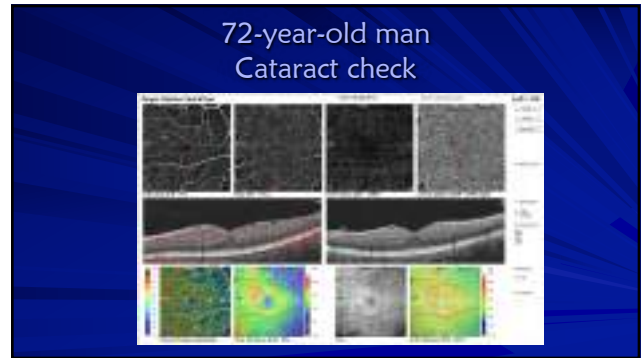
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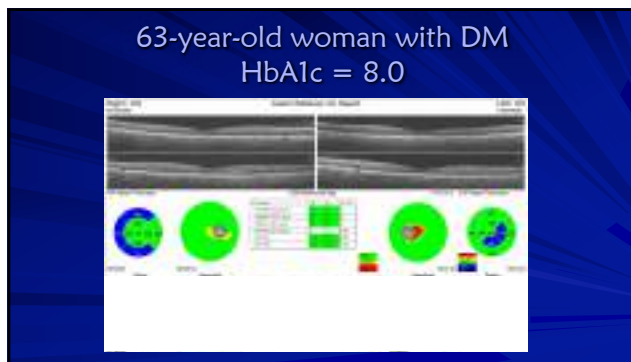
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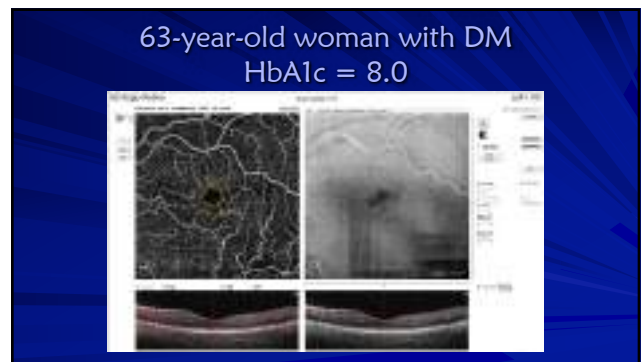
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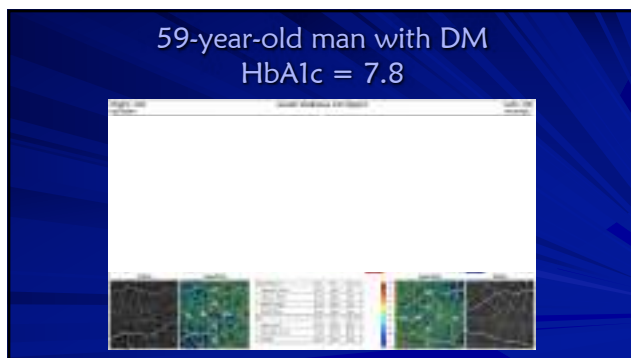
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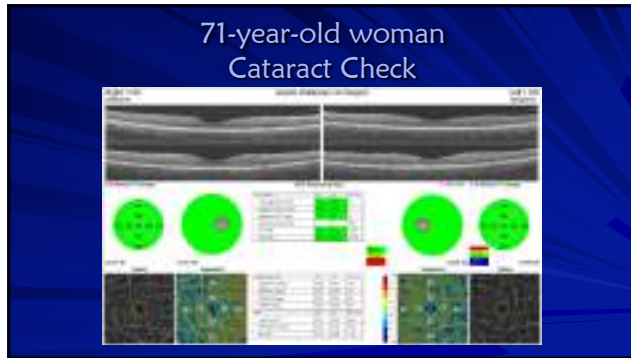
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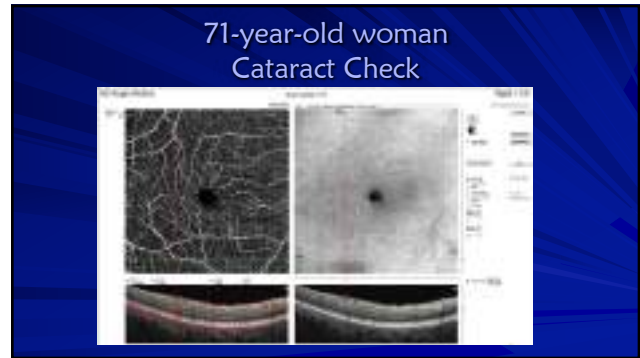
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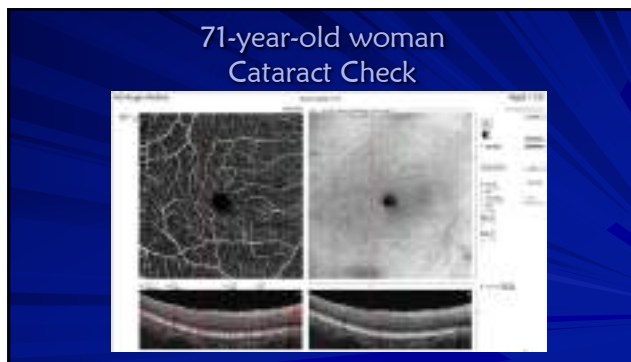
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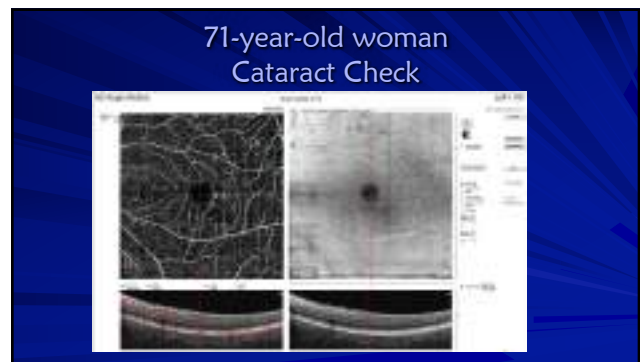
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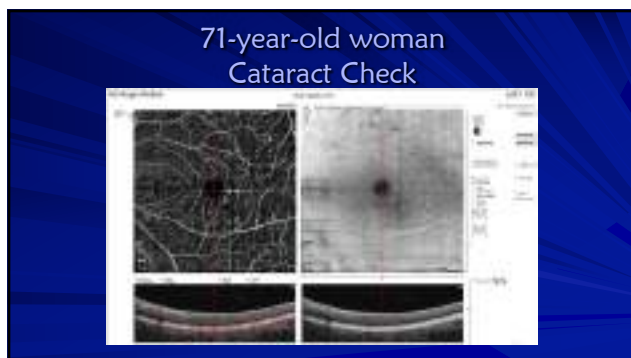
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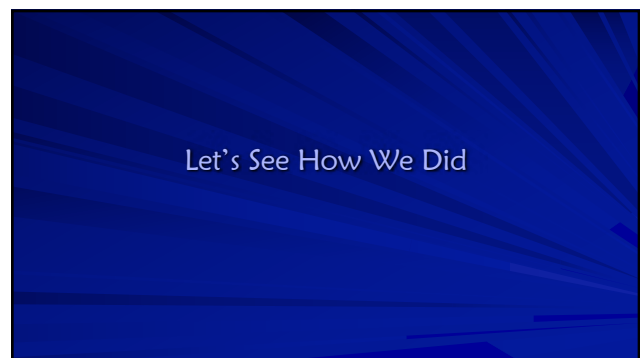
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Poll 4

This OCT is most likely

Real Disease
or
Physiologically Normal

55

Poll 5

This OCT is most likely

Real Disease
or
Physiologically Normal

56

Poll 6

This OCT is most likely

Real Disease
or
Physiologically Normal

57

Poll 7

This OCT is most likely

Real Disease
or
Physiologically Normal

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Green, Red, Yellow, and Blue Disease Hints to this Disease

- ⌘ Prefer to start evaluating an OCT with bilateral scan
- ⌘ If the disease is a bilateral disease
 - * Glaucoma
 - ⊖ It is usually asymmetric
- ⌘ If the scans are symmetric
 - * Then it most likely not disease – physiologically normal
 - * Anatomical variation
 - ⊖ Normal for that patient
- ⌘ Another hint is the GCC expected values
 - * 85-100 microns
 - * 92-95 microns

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Questions?

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 <p>Optometric Education Consultants</p>	<p>Thank you!</p> <p>OCT Red, Yellow, and Blue Disease What is Real Disease and What is Physiologically Normal</p> <p>Greg Caldwell, OD, FAAO</p> 
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