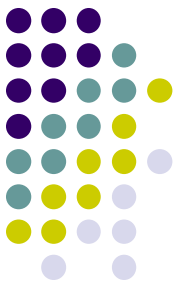


Q

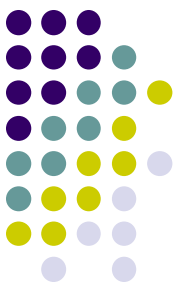
Central Serous Chorioretinopathy/Choroidopathy (CSC)



In general terms, what is the pathophysiology of CSC?

Q/A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



2

In general terms, what is the pathophysiology of CSC?

(not yet)



three words

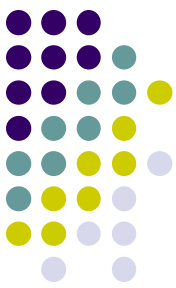
→ visual dysfunction



Answer this one first--what directly causes visual dysfunction in CSC?

Q/A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



3

In general terms, what is the pathophysiology of CSC?

(not yet)

→ serous retinal detachment → visual dysfunction



Answer this one first--what directly causes visual dysfunction in CSC?



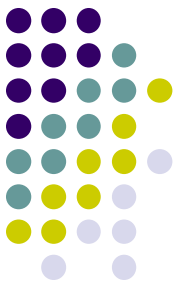
Central Serous Chorioretinopathy/Choroidopathy (CSC)



CSC: Serous RD

Q/A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



In general terms, what is the pathophysiology of CSC?

two words
+
four words and an abb.

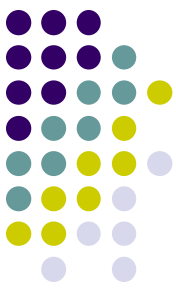
→ serous retinal detachment → visual dysfunction



*Now this one--what
causes the serous RD?*

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment → visual dysfunction

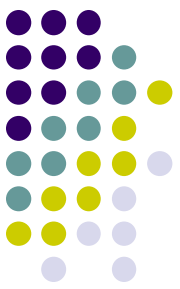
+
leakage at level of RPE



*Now this one--what
causes the serous RD?*

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



(**Choriocapillaris** hyperpermeability works too,
and might even be technically more correct)

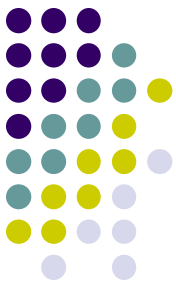
In general terms, what is the pathophysiology of CSC?

C'capillaris hyperpermeability → serous retinal detachment → visual dysfunction

+
leakage at level of RPE



*Now this one--what
causes the serous RD?*



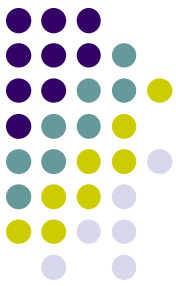
Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
 - ?
 - ?
 - ?
 - ?
 - ?

In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment + leakage at level of RPE ⇒ **visual dysfunction**



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
 - Decreased VA
 - Metamorphopsia
 - Micropsia
 - Scotomata
 - Altered color vision

In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment
+
leakage at level of RPE ⇒ **visual dysfunction**



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints
 - Decreased VA**
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 - Micropsia
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Is the loss of Snellen acuity usually mild, or severe?

In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment
 +
 leakage at level of RPE → **visual dysfunction**

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



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 - Micropsia
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Mild

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Choroidal hyperpermeability → serous retinal detachment
+
leakage at level of RPE

⇒ **visual dysfunction**



Q

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A

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The range is 20/20 - 20/200; the typical value is 20/30 or better

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Q

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A refractive shift may contribute to the decreased VA. If present, what sort of refractive shift is typical?

In general terms, what is the pathophysiology of CSC?

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 +
 leakage at level of RPE

⇒ **visual dysfunction**

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A **hyperopic** shift

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Choroidal hyperpermeability → serous retinal detachment
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Q

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Why a hyperopic shift?

In general terms, what is the pathophysiology of CSC?

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A

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A **hyperopic** shift

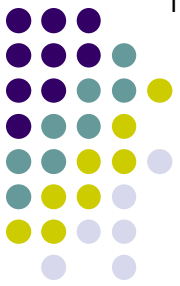
Why a hyperopic shift?

Because the submacular fluid elevates the fovea, shortening the effective axial length of the eye and rendering it more hyperopic

In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment
 +
 leakage at level of RPE

⇒ **visual dysfunction**



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

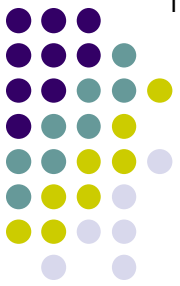
- Specific visual complaints in CSC:
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 - Metamorphopsia**
 - Micropsia**
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 - Altered color

What do the terms metamorphopsia and micropsia mean?

In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment
+
leakage at level of RPE

⇒ **visual dysfunction**



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

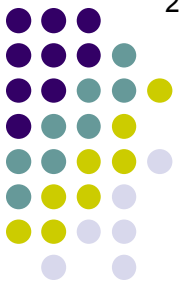
- Specific visual complaints in CSC:
 - Decreased VA
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Metamorphopsia refers to a distortion in the shape of an object's visual image

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Choroidal hyperpermeability → serous retinal detachment
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A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

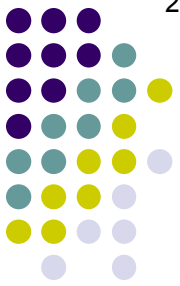
- Specific visual complaints in CSC:
 - Decreased VA
 - **Metamorphopsia**
 - **Micropsia**
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 - Altered color

What do the terms metamorphopsia and micropsia mean?
Metamorphopsia refers to a distortion in the shape of an object's visual image. *Micropsia* occurs when an object appears to be smaller than its actual size.

In general terms, what is the pathophysiology of CSC?

Choroidal hyperpermeability → serous retinal detachment
+
leakage at level of RPE

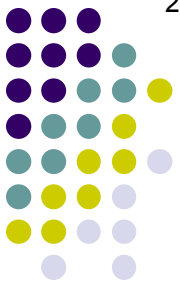
⇒ **visual dysfunction**



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

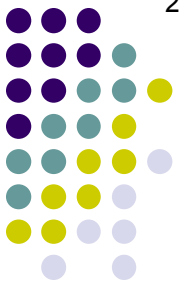
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- Classic CSC demographics:
 - Sex: ?



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
 - Decreased VA
 - Metamorphopsia
 - Micropsia
 - Scotomata
 - Altered color vision
- Classic CSC demographics:
 - Sex: Male

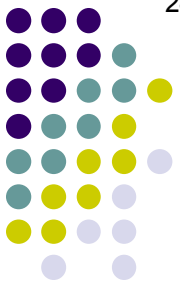


Q

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 - Micropsia
 - Scotomata
 - Altered color vision
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What is the male:female ratio?

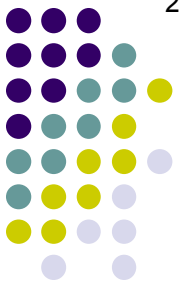


A

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 - Decreased VA
 - Metamorphopsia
 - Micropsia
 - Scotomata
 - Altered color vision
- Classic CSC demographics:
 - Sex: **Male**

What is the male:female ratio?
About 3:1



Q

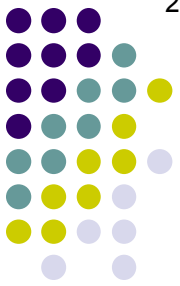
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 - Decreased VA
 - Metamorphopsia
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 - Scotomata
 - Altered color vision
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 - Sex: **Male**

What is the male:female ratio?

About 3:1

3:1???!! I thought it was more like 10:1, or at least 6:1. What gives?



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

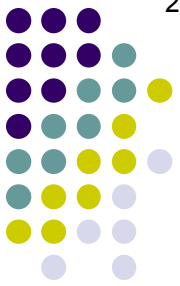
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3:1???!! I thought it was more like 10:1, or at least 6:1. What gives?

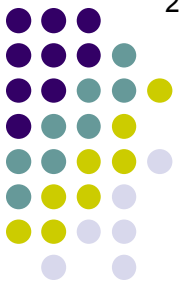
It's true that early studies found ratios in the 6:1 to 10:1 range. However, upon further review it is clear that the early research heavily overrepresented males. So 3:1 it is.



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

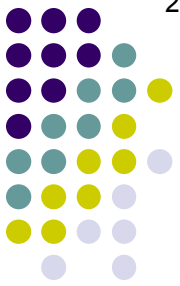
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 - Age: ?



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Specific visual complaints in CSC:
 - Decreased VA
 - Metamorphopsia
 - Micropsia
 - Scotomata
 - Altered color vision
- Classic CSC demographics:
 - Sex: Male
 - Age: 35 – 55

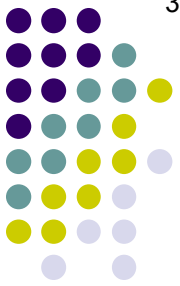


Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

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 - Micropsia
 - Scotomata
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What diagnosis must you consider carefully before deciding an individual over 50 has CSC?

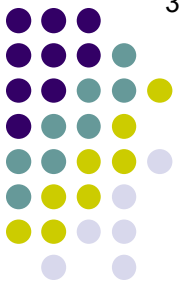


A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

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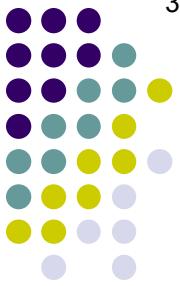
What diagnosis must you consider carefully before deciding an individual over 50 has CSC?
Wet ARMD



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

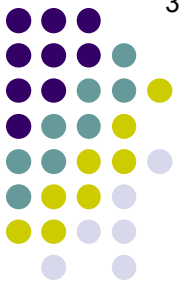
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 - Scotomata
 - Altered color vision
- Classic CSC demographics:
 - Sex: Male
 - Age: 35 – 55
 - Racial predilection: ?



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

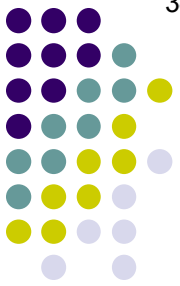
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 - Micropsia
 - Scotomata
 - Altered color vision
- Classic CSC demographics:
 - Sex: Male
 - Age: 35 – 55
 - *Racial predilection:* None



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

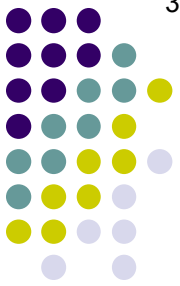
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 - Sex: Male
 - Age: 35 – 55
 - Racial predilection: None
 - General health: ?



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

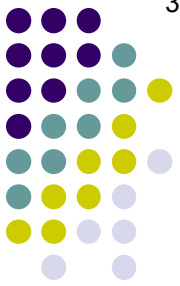
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- Classic CSC demographics:
 - Sex: Male
 - Age: 35 – 55
 - *Racial predilection:* None
 - *General health:* Good



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

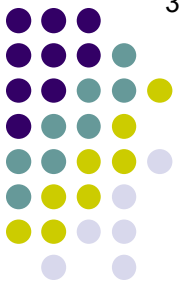
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 - Altered color vision
- Classic CSC demographics:
 - Sex: Male
 - Age: 35 – 55
 - Racial predilection: None
 - General health: Good
 - Personality: ?



A

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 - Age: 35 – 55
 - Racial predilection: None
 - General health: Good
 - Personality: 'Type A'



Q

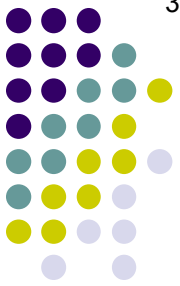
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 - Sex: Male

What words are we looking for to clue us in we're dealing with someone predisposed personality-wise to CSC?

--
--
--

- *Personality: 'Type A'*



A

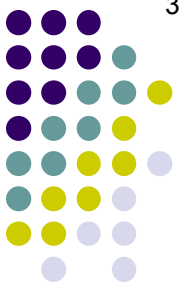
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 - Micropsia
 - Scotomata
 - Altered color vision
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 - Sex: Male

What words are we looking for to clue us in we're dealing with someone predisposed personality-wise to CSC?

--'Tense'
--'Driven'
--'Stressed'

- *Personality: 'Type A'*



Q

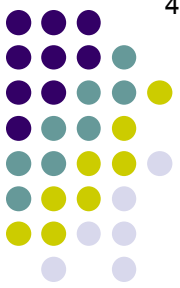
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:
 - Most common: An (aka)

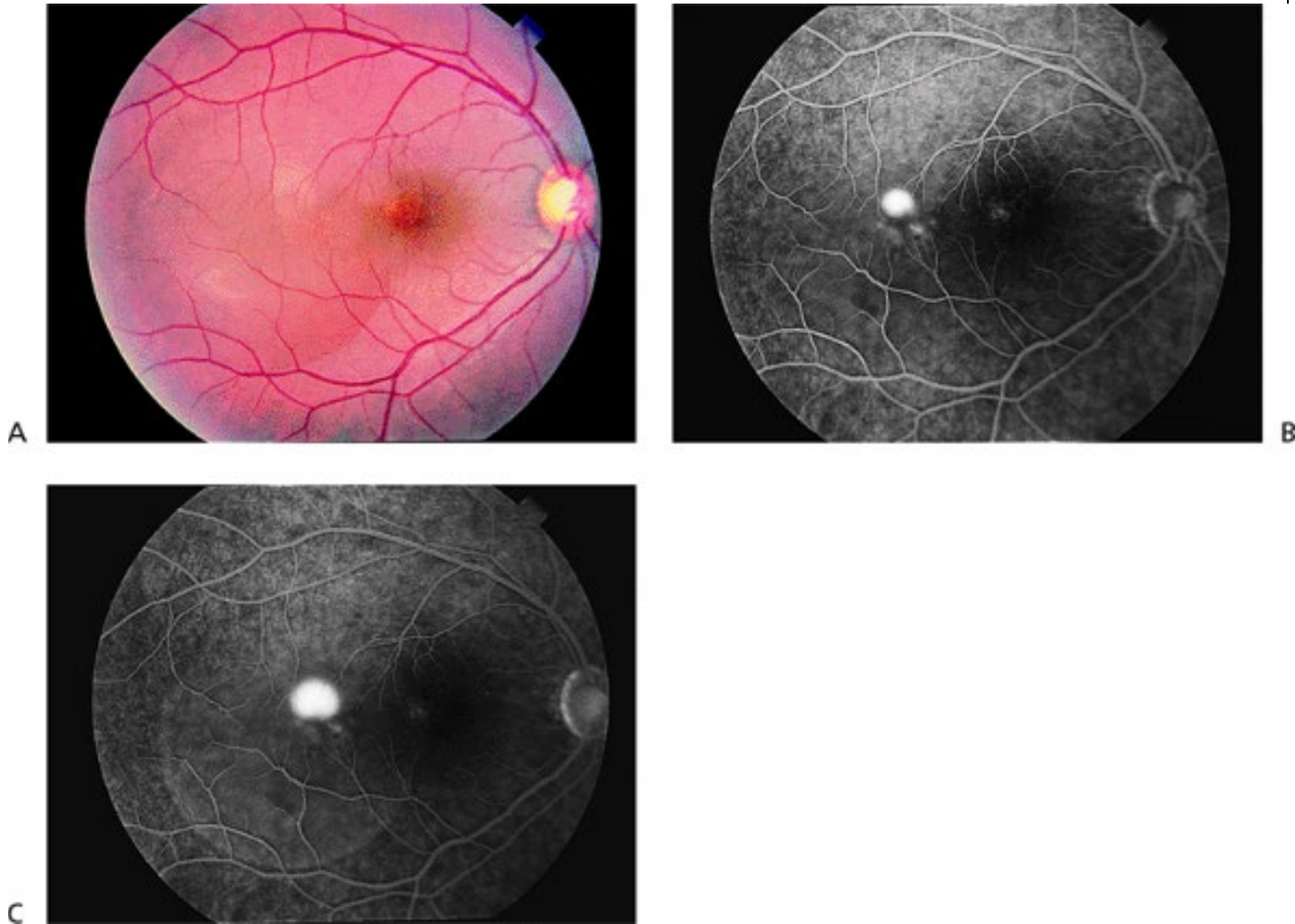
A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

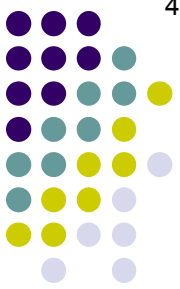
- Three leakage patterns seen on FA:
 - Most common: An **expansile dot** (aka *ink blot*)

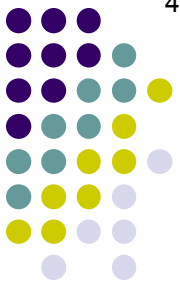


Central Serous Chorioretinopathy/Choroidopathy (CSC)



CSC: Expansile dot





Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

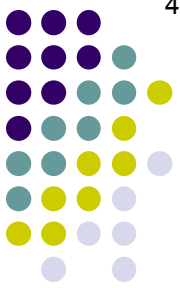
- Three leakage patterns seen on FA:
 - Most common: An **expansile dot** (aka **ink blot**)
 - Less common, but more classic:

one word

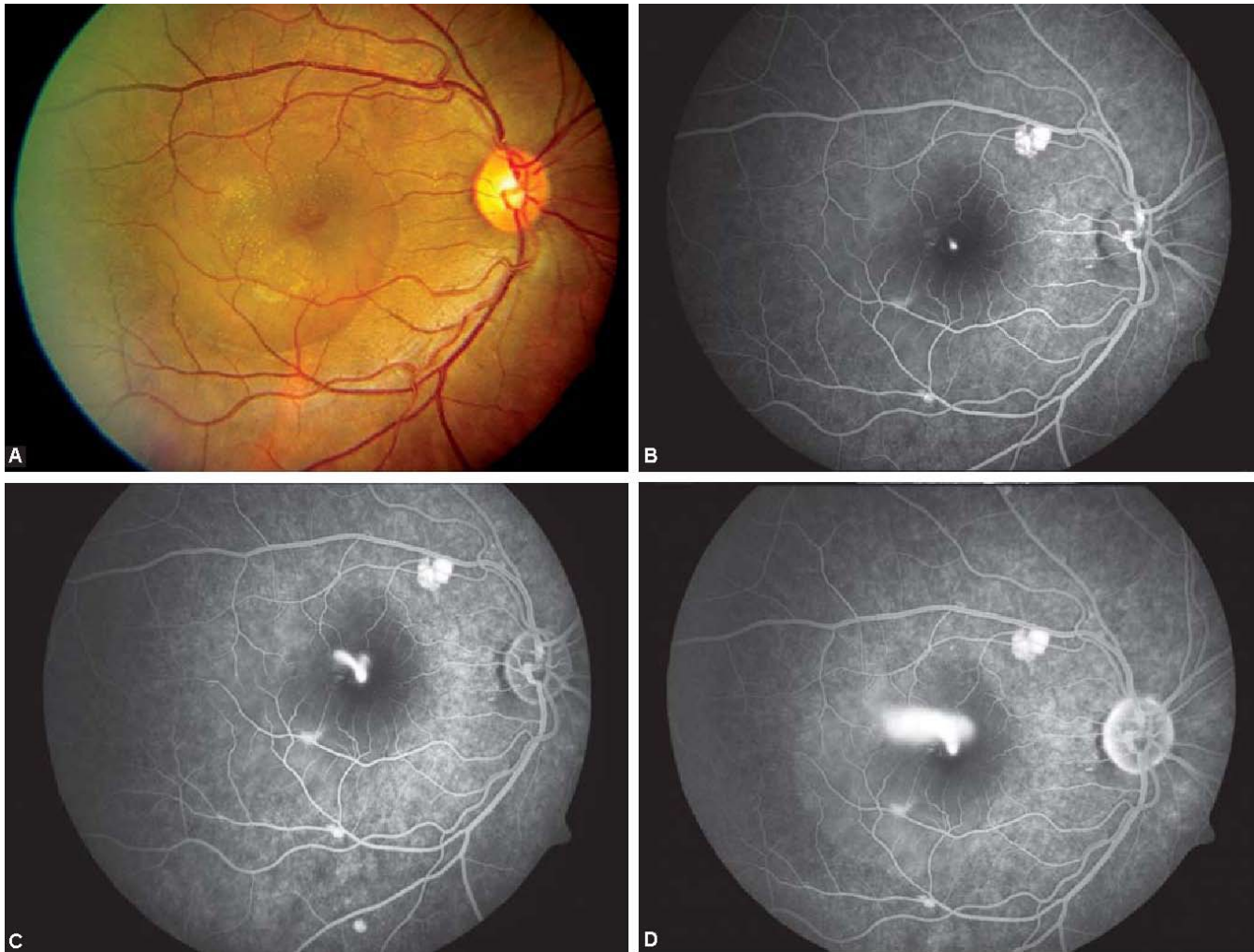
A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

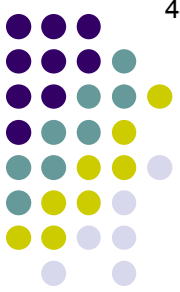
- Three leakage patterns seen on FA:
 - Most common: An **expansile dot** (aka *ink blot*)
 - Less common, but more classic: **Smokestack**

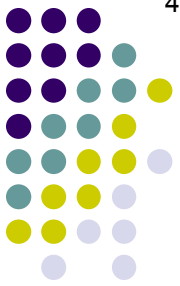


Central Serous Chorioretinopathy/Choroidopathy (CSC)



CSC: Smokestack pattern





Q

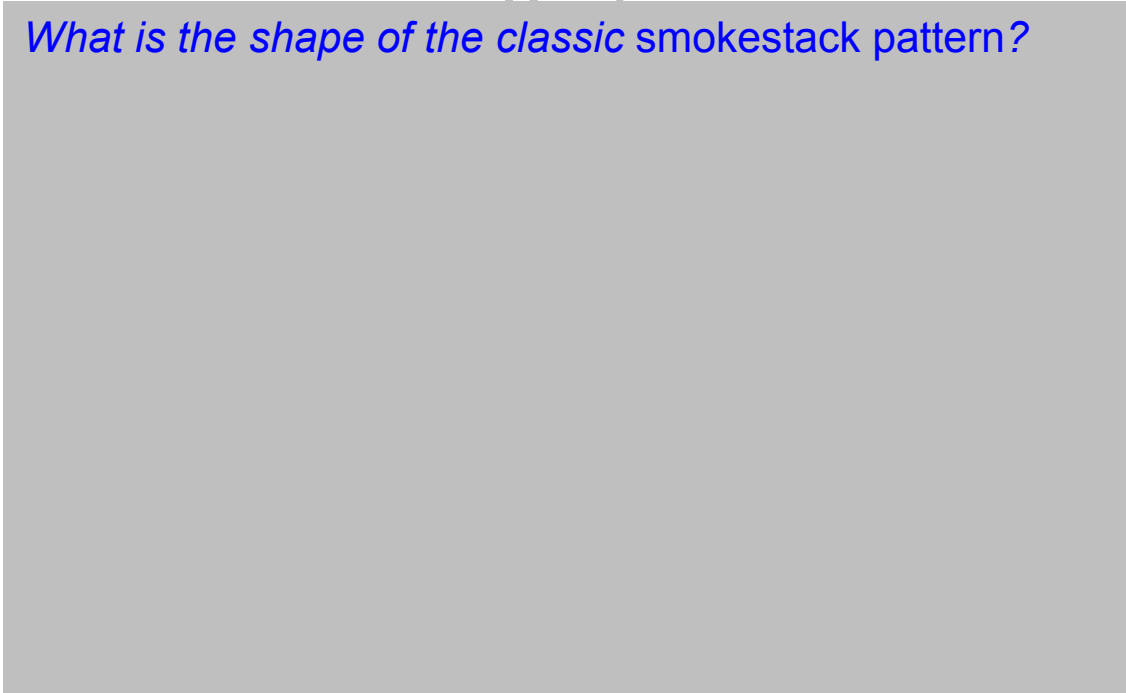
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:

What is the shape of the classic smokestack pattern?

(aka *ink blot*)

Smokestack



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

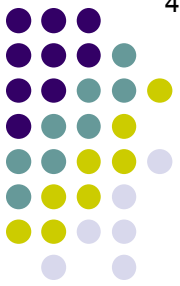
- Three leakage patterns seen on FA:

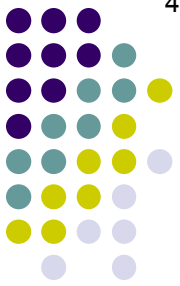
What is the shape of the classic smokestack pattern?

Um, a smokestack?

(aka *ink blot*)

Smokestack





Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Three leakage patterns seen on FA:

What is the shape of the classic smokestack pattern?

Um, a smokestack?

*Importantly, it is **not** smokestack-shaped. Rather, it is so named because the dye behaves as if it's smoke billowing from a smokestack. And the Retina book provides a particular description of this behavior. What is it?*

(aka *ink blot*)

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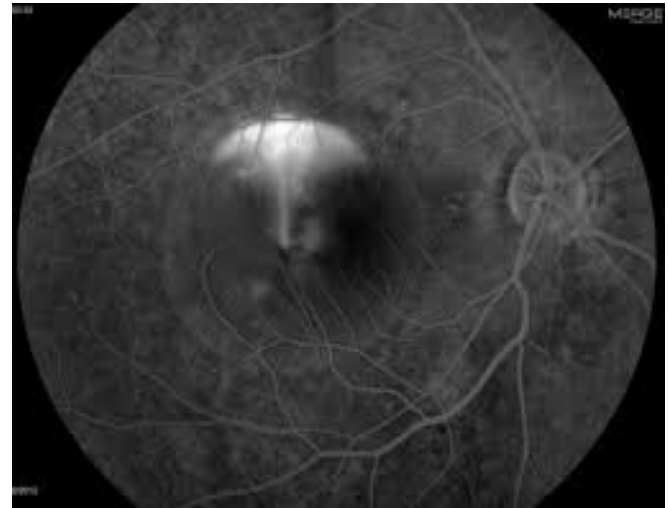
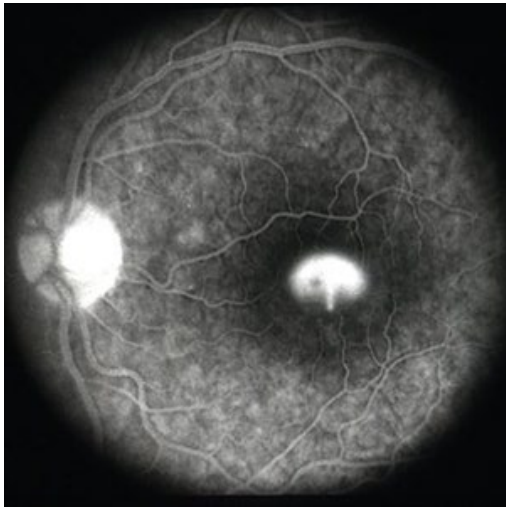
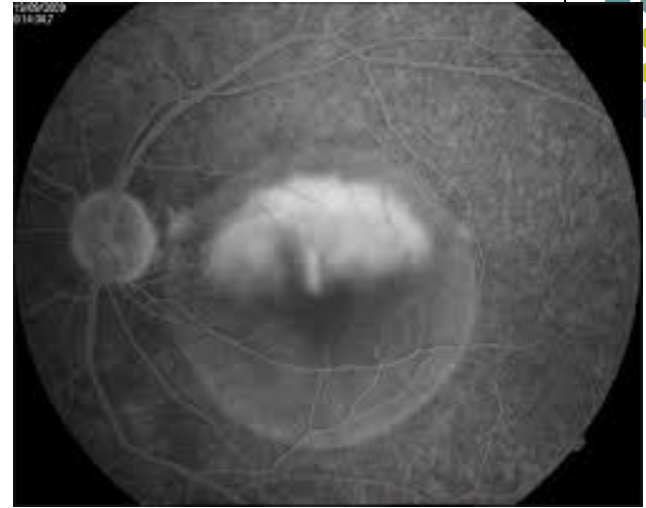
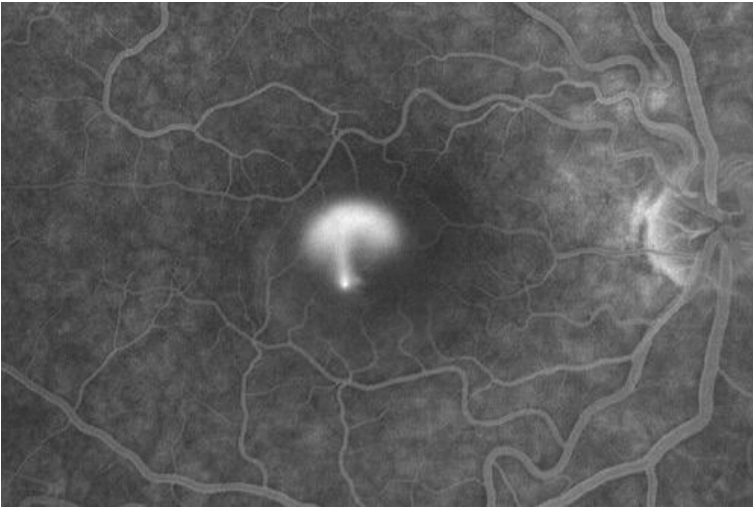
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'Tree shaped;' ie, a narrow, trunk-like portion below with a spread-out, canopy-like portion above

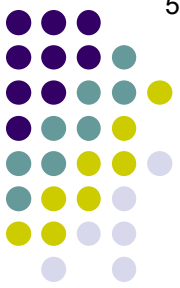
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Smokestack

Central Serous Chorioretinopathy/Choroidopathy (CSC)



CSC: 'Tree shaped' FA pattern



Q

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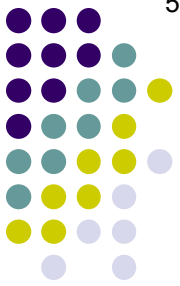
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So, it's a smokestack yielding a tree? Isn't that a rather awkward mixing of metaphors?

(aka *ink blot*)

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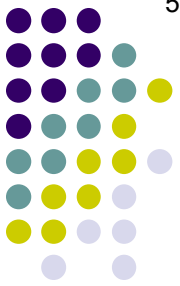
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What can I say--I'm just the messenger

(aka *ink blot*)

Smokestack

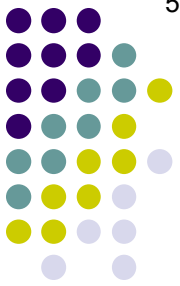


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What imaging technique has largely supplanted FA in diagnosing CSC?

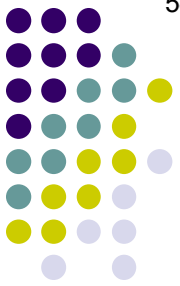


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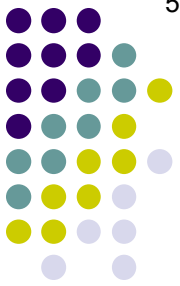
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Does OCT have any advantages as an imaging modality for CSC?



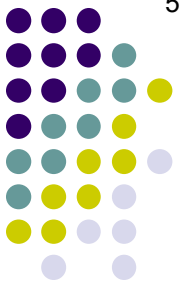
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Does OCT have any advantages as an imaging modality for CSC?
It does indeed. In addition to being noninvasive, OCT can reveal subtle amounts of subretinal fluid (SRF) and/or sub-RPE fluid that may be too scant to be detected via FA.



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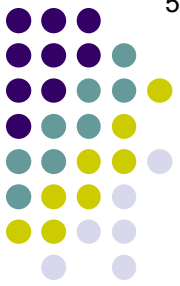
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What is the typical appearance of CSC on OCT?



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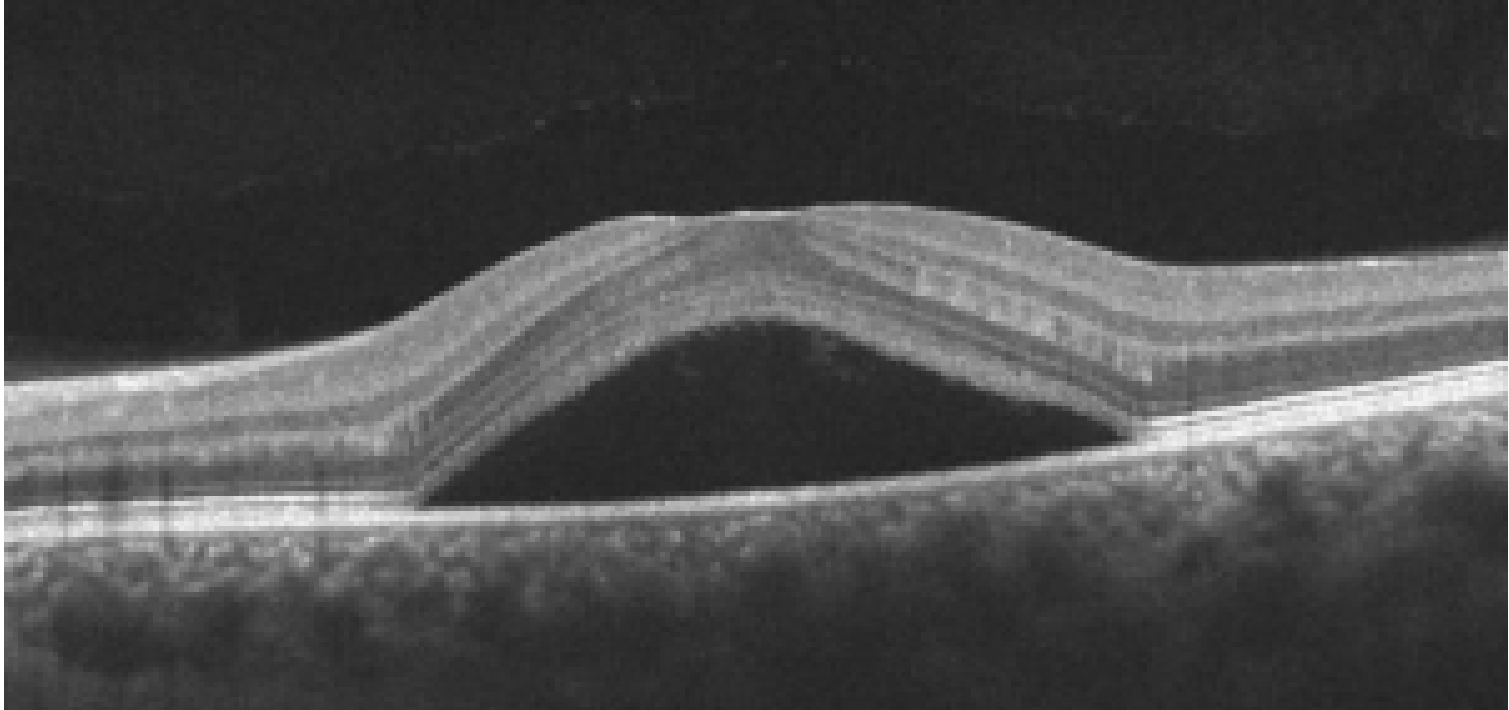
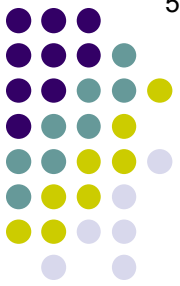
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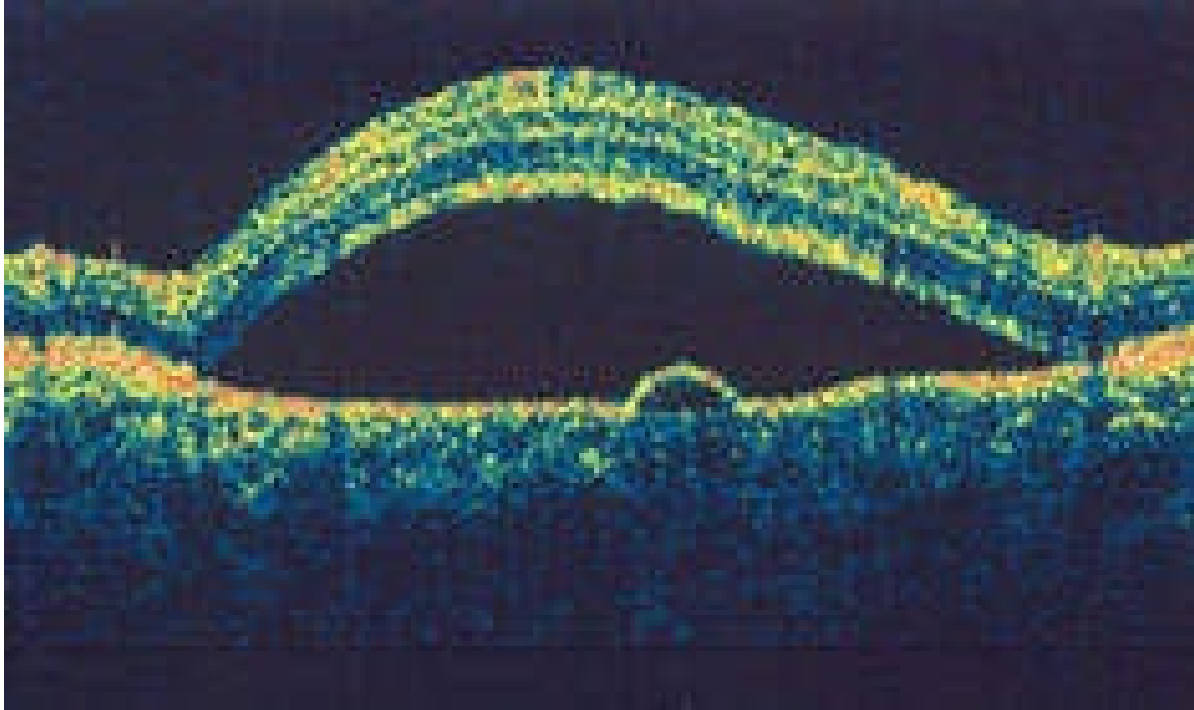
A sharply demarcated elevation of the neurosensory retina or RPE (or both) with an optically empty space beneath

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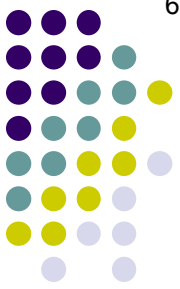


CSC: OCT

Central Serous Chorioretinopathy/Choroidopathy (CSC)



CSC: OCT



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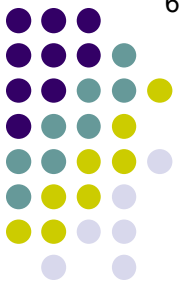
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We will have more to say about the OCT appearance of CSC later in the slide-set

*What is the typical **appearance of CSC on OCT?***

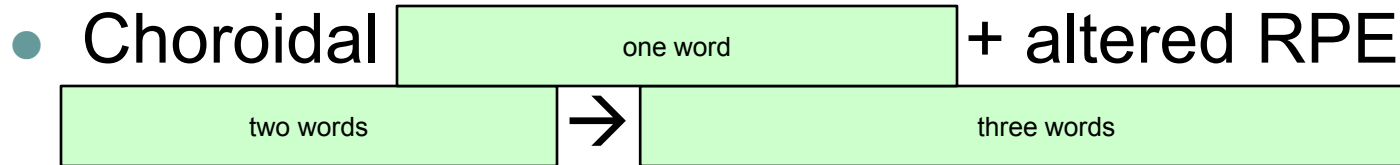
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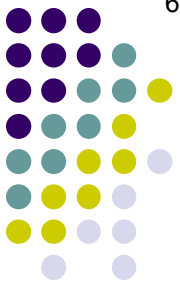
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(Note: this question recapitulates, for emphasis, info you should already know from earlier)

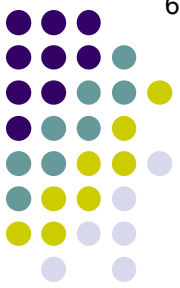


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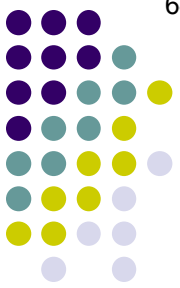
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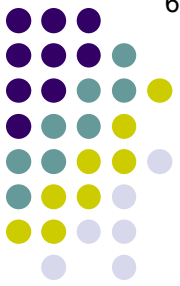
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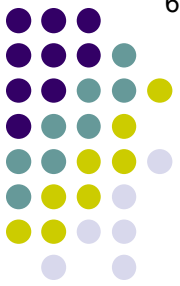
returns to baseline vs remains poor



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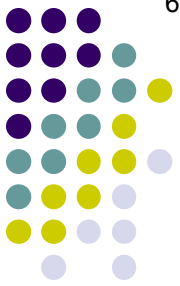
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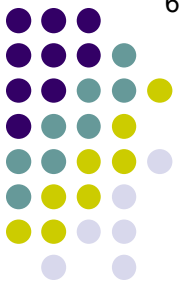
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A

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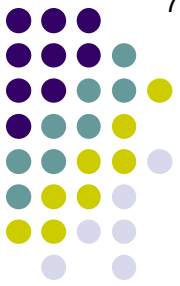
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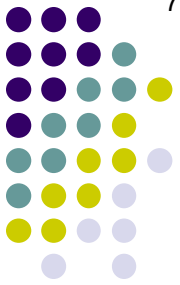
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Q

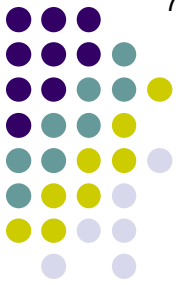
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**
 - Assess for high levels of endogenous or exogenous

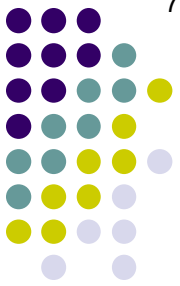
can be a drug, or not

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



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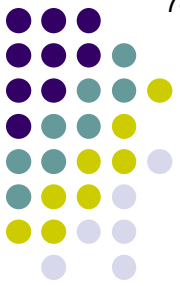


Q

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What is the classic cause of endogenous hypercortisolism?

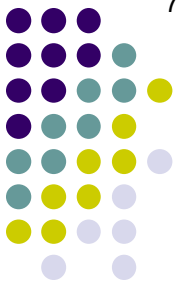


A

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What is the classic cause of endogenous hypercortisolism?
Cushing syndrome



Q

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Which of these corticosteroid administration routes have been associated with CSC?

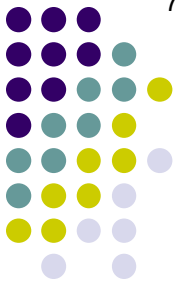
--PO?

--IV?

--Topical?

--Intra-articular?

--Intranasal?



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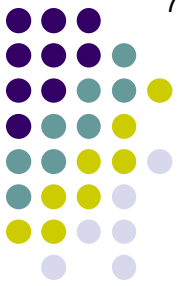
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} **All** have been implicated in CSC



Q

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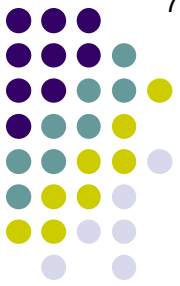
--Intra-articular!

--Intranasal!

--Intravitreal?

All have been implicated in CSC

What about intravitreal steroids? Surely these can cause CSC as well?



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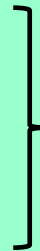
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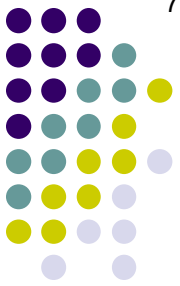


All have been implicated in CSC

--Intravitreal? NO!!

What about intravitreal steroids? Surely these can cause CSC as well?

You'd think so, but no--there is no evidence that it does

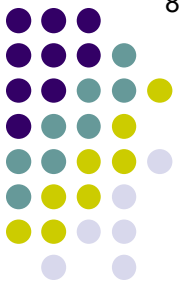


Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

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Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they?

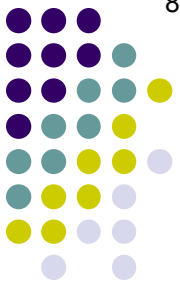


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Corticosteroids are the classic cause of med-induced CSC, but two other meds are mentioned in the BCSC Retina book. What are they? Sildenafil, and MEK inhibitors



Q

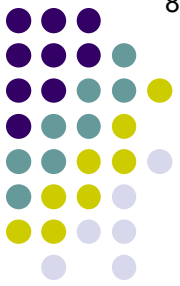
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Sildenafil, and MEK inhibitors

What class of med is sildenafil?



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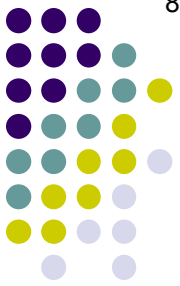
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Sildenafil, and MEK inhibitors

What class of med is sildenafil?

It is a phosphodiesterase-5 (PDE5) inhibitor



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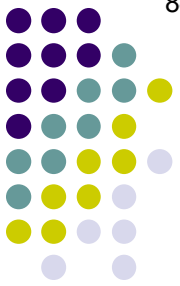
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How do PDE5 inhibitors cause CSC?



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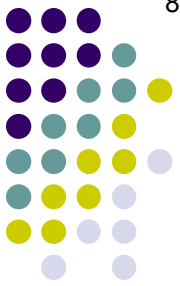
Sildenafil, and MEK inhibitors

What class of med is sildenafil?

It is a phosphodiesterase-5 (PDE5) inhibitor

How do PDE5 inhibitors cause CSC?

Probably by inducing dilation of the choroidal vasculature



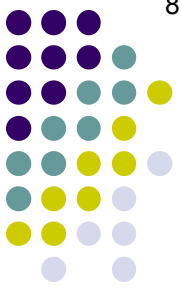
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*Corticosteroids are the classic cause of CSC. Other meds are mentioned in the EBM. Sildenafil and **MEK inhibitors***

What does MEK stand for in this context?



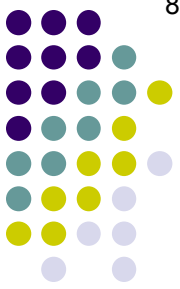
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- Still more re CSC: **Management**
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*Corticosteroids are the classic cause of CSC. Other meds are mentioned in the EBM. Sildenafil and **MEK inhibitors***

*What does MEK stand for in this context?
Don't ask--it's complicated*



Q

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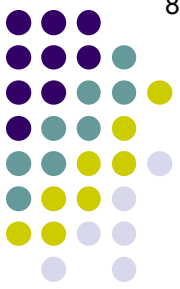
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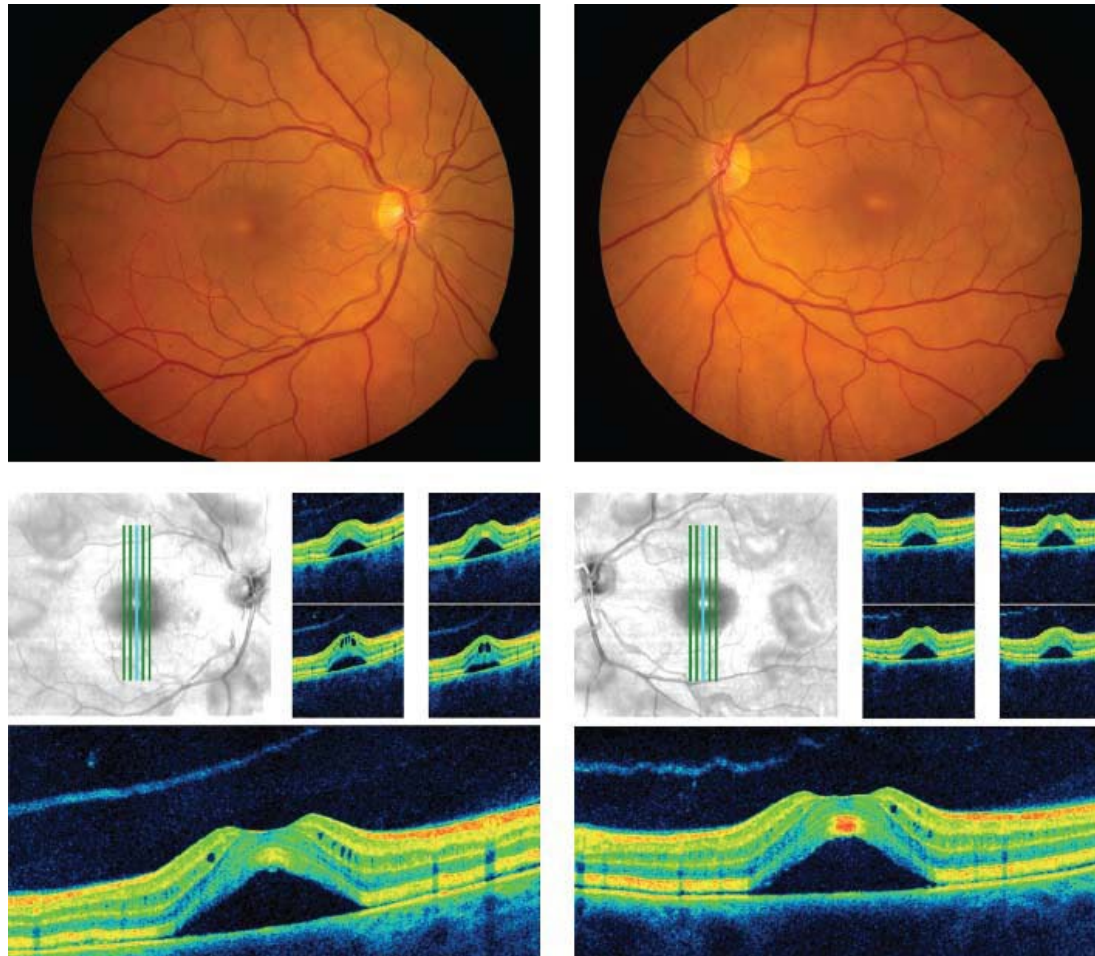
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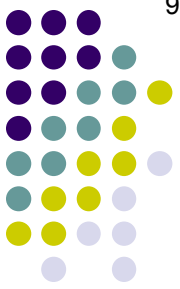
What are MEK inhibitors (MEKs) used to treat?

Metastatic cancer

Central Serous Chorioretinopathy/Choroidopathy (CSC)



MEK toxicity. Patient reported decreased vision 3 weeks after starting a MEK inhibitor for metastatic cutaneous melanoma. Fundus photos and OCT images demonstrate multifocal serous detachments involving the fovea and around the arcades.



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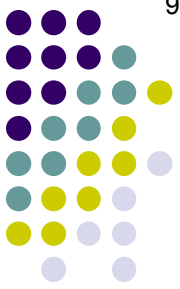
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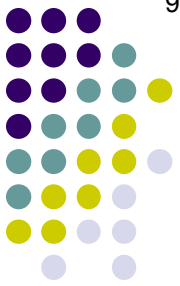
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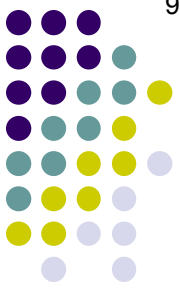
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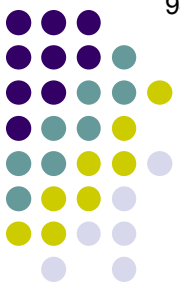
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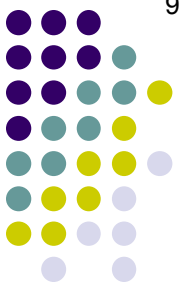
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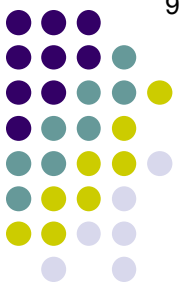
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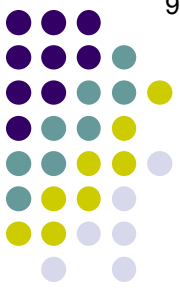
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Sildenafil

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Vogt-Koyanagi-Harada dz

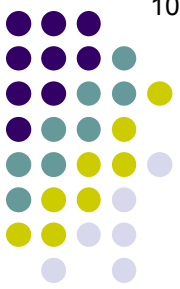
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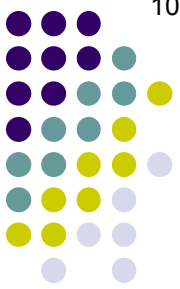
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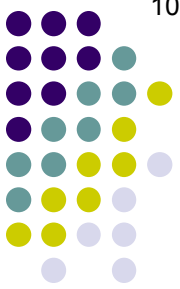
- Still more re CSC: **Management**
 - Assess for high levels of endogenous or exogenous **corticosteroids**
 - Wait about time frame for spontaneous resolution

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Central Serous Chorioretinopathy/Choroidopathy (CSC)



- Still more re CSC: **Management**
 - Assess for high levels of endogenous or exogenous corticosteroids
 - Wait about 3 months for spontaneous resolution

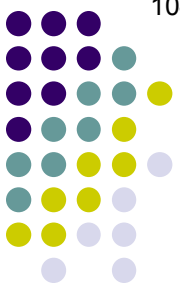


Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

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 - Wait about **3 months** for spontaneous resolution

Why should intervention be considered at around the 3-month point?

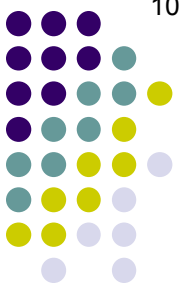


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Why should intervention be considered at around the 3-month point?
Because photoreceptor atrophy will begin to occur at this juncture



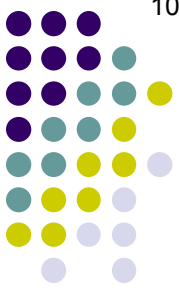
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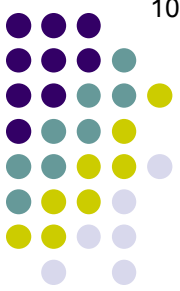
- Still more re CSC: **Management**
 - Assess for high levels of endogenous or exogenous **corticosteroids**
 - Wait about **3 months** for spontaneous resolution
 - Reasons to treat sooner than 3 months:
 - Recurrence in eye with two words

A

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 - Reasons to treat sooner than 3 months:
 - Recurrence in eye with **previous deficit**



Q

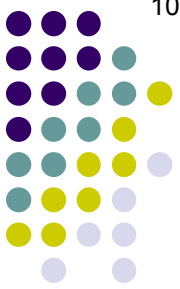
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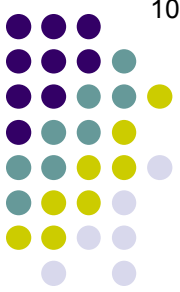
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 - this reason has nothing to do with the current eye/episode

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Central Serous Chorioretinopathy/Choroidopathy (CSC)



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 - Reasons to treat sooner than 3 months:
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Q

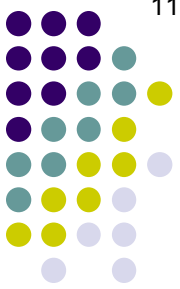
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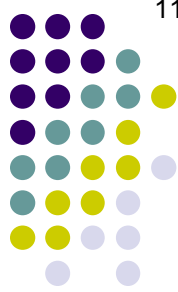
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A

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 - Decreased vision in fellow eye from previous episode
 - Cystic retinal changes



Q

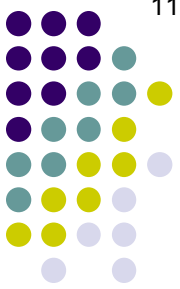
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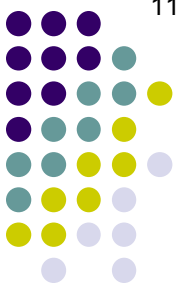
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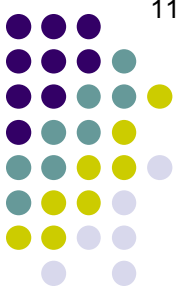
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 - Occupational needs



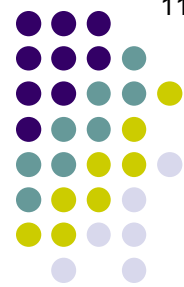
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- Treatment:

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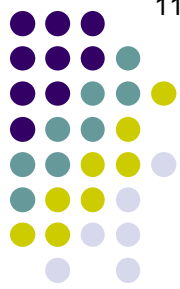


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 - **Occupational** needs
- Treatment: **Photodynamic therapy**



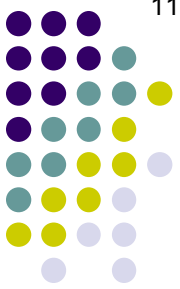
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What is photodynamic therapy?

- Occupational needs
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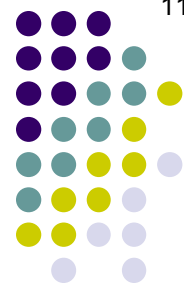
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- Occupational needs
- Treatment: **Photodynamic therapy**



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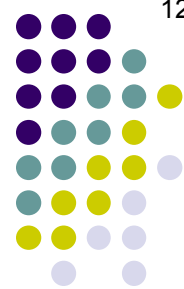
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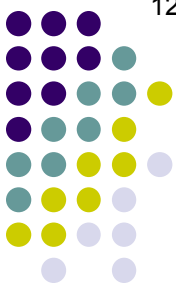
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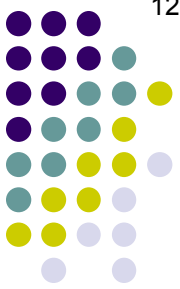
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- Occupational needs
- Treatment: **Photodynamic therapy**



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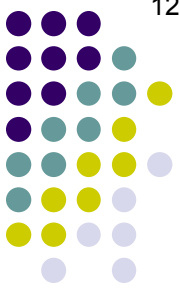
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Verteporfin

- Occupational needs
- Treatment: **Photodynamic therapy**



Q

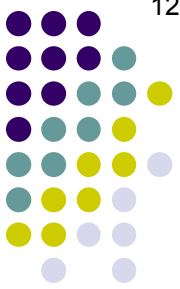
Central Serous Chorioretinopathy/Choroidopathy (CSC)

- Still more re CSC: **Management**

- Assess for high levels of endogenous or exogenous corticosteroids

What about thermal laser? It is an effective treatment?

- Decreased vision in fellow eye from previous episode
- Cystic retinal changes
- Widespread RPE changes
- Occupational needs
- Treatment: *Thermal laser?*



A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

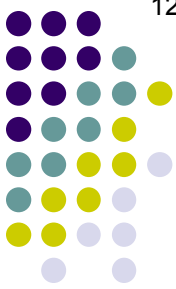
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Q

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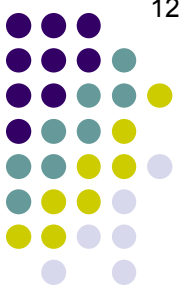
However, when studies compare treated vs untreated eyes:

- three words was no different between groups
- two words was no different between groups

- Decreased vision in fellow eye from previous episode

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A

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--**Recurrence rate** was no different between groups

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Q

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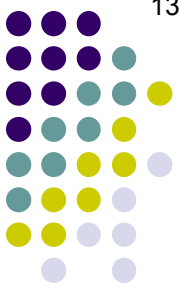
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Q/A

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Inadvertent rupture of Bruch's membrane leading to iatrogenic

abb.

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A

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Q

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Inadvertent rupture of Bruch's membrane leading to iatrogenic **CNVM**

- Decreased vision in fellow eye from previous episode

- Cystic retinal changes *Can CSC pts develop CNVM spontaneously?*

- Widespread RPE changes

- Occupational needs

- Treatment: Thermal laser? Meh



A

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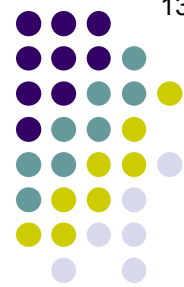
Can CSC pts develop CNVM spontaneously?

Yes

- Widespread RPE changes

- Occupational needs

- Treatment: Thermal laser? Meh



Central Serous Chorioretinopathy/Choroidopathy (CSC)

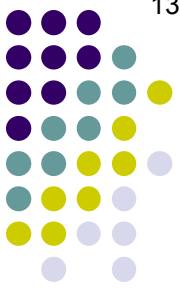
- Still more re CSC: **Management**
 - Assess for high levels of endogenous or exogenous corticosteroids
 - Wait about **3 months** for spontaneous resolution
 - Reasons to treat sooner than 3 months:

Remember, the treatment of choice in most CSC cases is **observation**

- Decreased vision in fellow eye from previous episode
- Cystic retinal changes
- Widespread RPE changes
- Occupational needs
- Treatment: **Photodynamic therapy**

Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

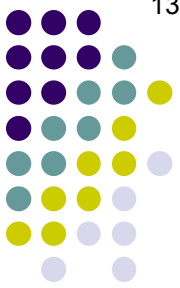


- Differential for CSC:

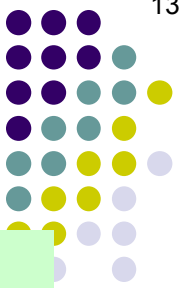
-
-
-
-
-
-
-

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



- Differential for CSC:
 - Optic nerve pit
 - Vogt-Koyanagi-Harada (VKH) disease
 - Wet age-related macular degeneration (ARMD)
 - Pigment epithelial detachment (PED)
 - Toxemia of pregnancy
 - Choroidal nevi
 - Polypoidal choroidal vasculopathy
 - Uveal effusion syndrome



Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

What is uveal effusion syndrome?

- **Uveal effusion syndrome**

Q/A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

What is uveal effusion syndrome?

An idiopathic condition in which abnormalities of scleral [redacted] and/or [redacted] interfere with fluid movement across the scleral wall

- **Uveal effusion syndrome**

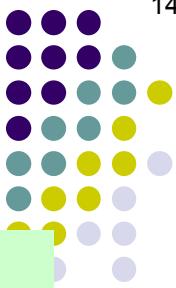
A

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Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

What is uveal effusion syndrome?

An idiopathic condition in which abnormalities of scleral composition and/or thickness interfere with fluid movement across the scleral wall, **resulting in**

[] and

[two words]

thickening,

[abb.]

alterations, and

[type of]

RD

- **Uveal effusion syndrome**

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

What is uveal effusion syndrome?

An idiopathic condition in which abnormalities of scleral composition and/or thickness interfere with fluid movement across the scleral wall, **resulting in choroidal and ciliary body thickening, RPE alterations, and exudative RD**

- **Uveal effusion syndrome**



Q

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- **Uveal effusion syndrome**

Q/A

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A **life stage** who is **refractive status**

- **Uveal effusion syndrome**

A

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Who is the typical pt?

A young adult who is hyperopic

- **Uveal effusion syndrome**



Q

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Q/A

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Small alternating areas of blocking and window defects described as

two buzzwords for this condition

- **Uveal effusion syndrome**

A

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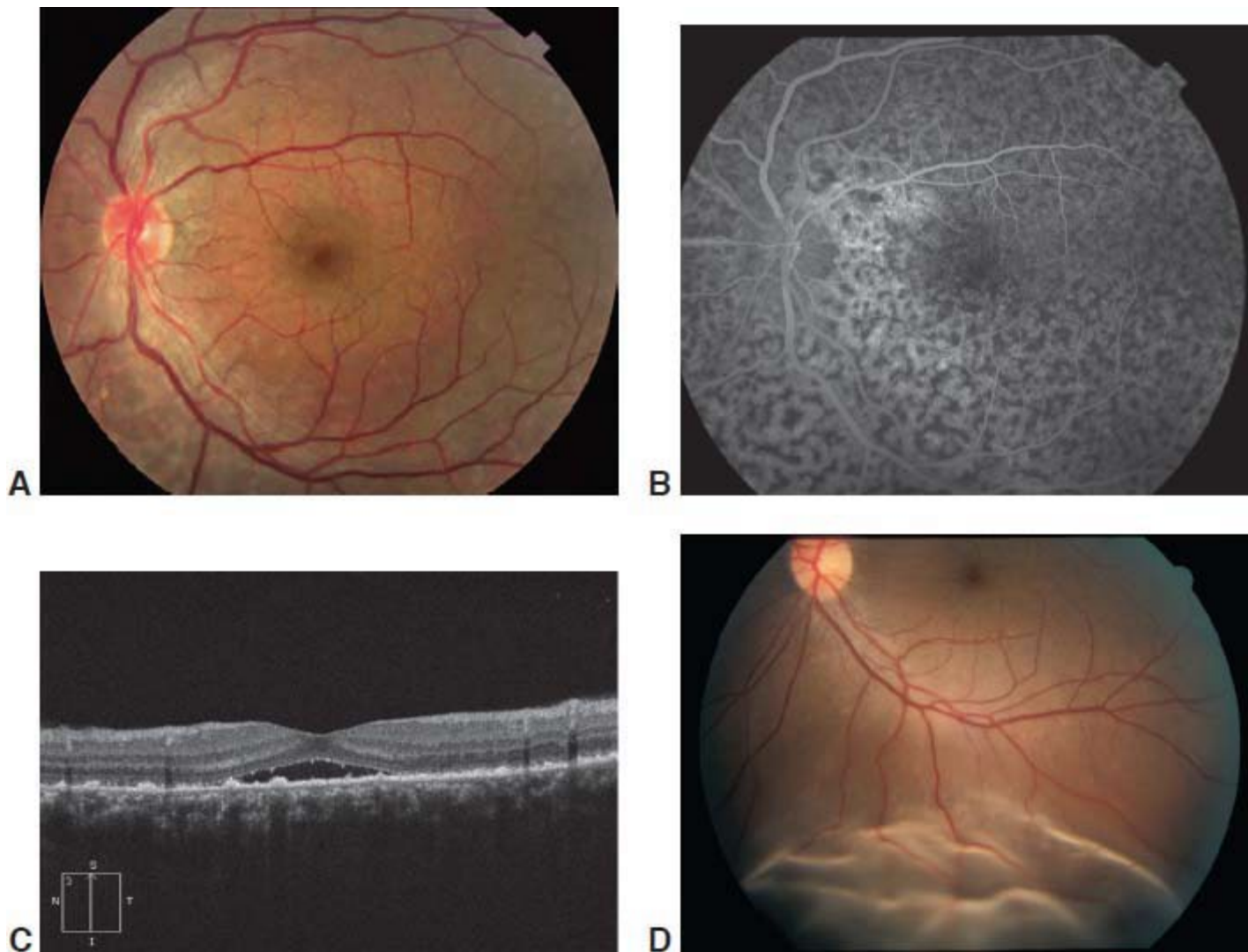
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- **Uveal effusion syndrome**



Idiopathic uveal effusion. A, Fundus photo demonstrates blunted foveal reflex and irregular, subtle subretinal deposits. B, Corresponding FA reveals a diffuse leopard-spot pattern of blocking with intervening window defects involving the entire posterior pole. C, OCT scan reveals a small amount of subfoveal fluid and outer retinal deposits. (Not shown is a peripheral serous RD). D, Fundus photo (from a different case) shows the typical appearance of serous RD as well as an underlying choroidal detachment (common for this condition).



Q

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Q/A

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No (which differentiates it from two words)

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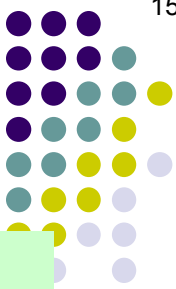
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No (which differentiates it from posterior scleritis)

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Q

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Is there evidence of inflammation?

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Q/A

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No (which differentiates it from posterior scleritis)

Is there evidence of inflammation?

No (which differentiates it from eponym)

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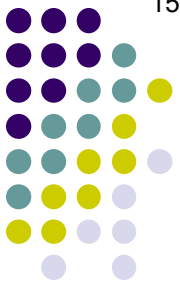
No (which differentiates it from posterior scleritis)

Is there evidence of inflammation?

No (which differentiates it from VKH)

- **Uveal effusion syndrome**

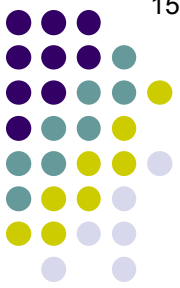
Central Serous Chorioretinopathy/Choroidopathy (CSC)



Changing gears...

(No question yet)

Central Serous Chorioretinopathy/Choroidopathy (CSC)



Changing gears...

Is it CSC or wet ARMD? An important distinction to make—can you make it?

(No question yet)

Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)



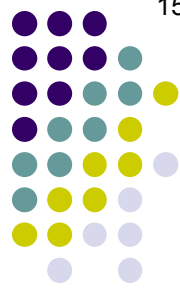
Changing gears...

Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area						
CSC	?						
ARMD	?						

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

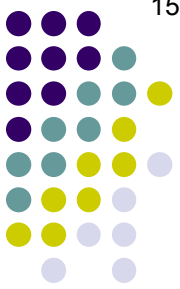


Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area						
CSC	Leak << SRF						
ARMD	Leak \approx SRF						

Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)



Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area	Multiple small PED present?					
CSC	Leak << SRF	?					
ARMD	Leak \approx SRF	?					

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

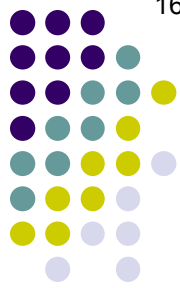


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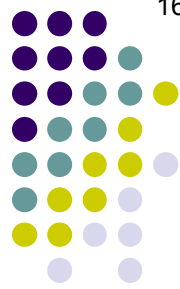


Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area	Multiple small PED present?	Drusen present?				
CSC	Leak << SRF	Yes	?				
ARMD	Leak \approx SRF	No	?				

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)

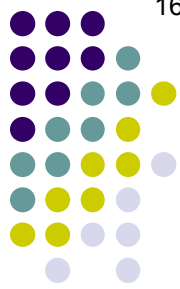


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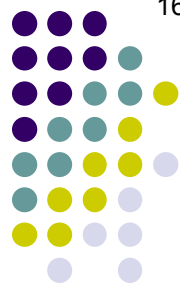


Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area	Multiple small PED present?	Drusen present?	Blood present?			
CSC	Leak << SRF	Yes	No	?			
ARMD	Leak \approx SRF	No	Yes	?			

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



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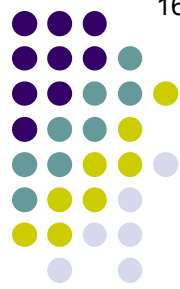


Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area	Multiple small PED present?	Drusen present?	Blood present?	Lipid present?		
CSC	Leak << SRF	Yes	No	No	?		
ARMD	Leak \approx SRF	No	Yes	Yes	?		

A

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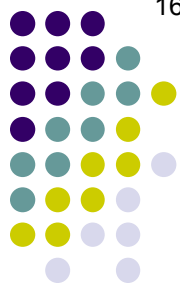


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CSC	Leak << SRF	Yes	No	No	No		
ARMD	Leak \approx SRF	No	Yes	Yes	Yes		

Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)



Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area	Multiple small PED present?	Drusen present?	Blood present?	Lipid present?	Choroidal thickness c/w normal	
CSC	Leak << SRF	Yes	No	No	No	?	
ARMD	Leak \approx SRF	No	Yes	Yes	Yes	?	

A

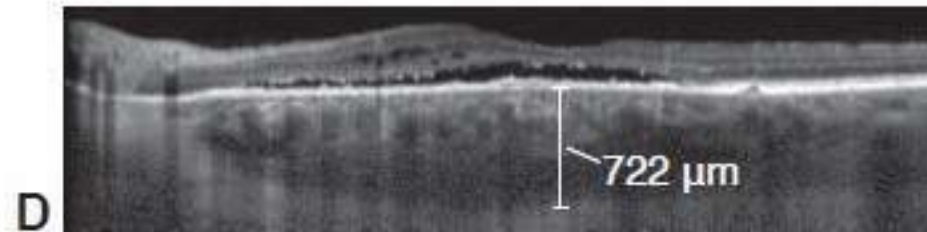
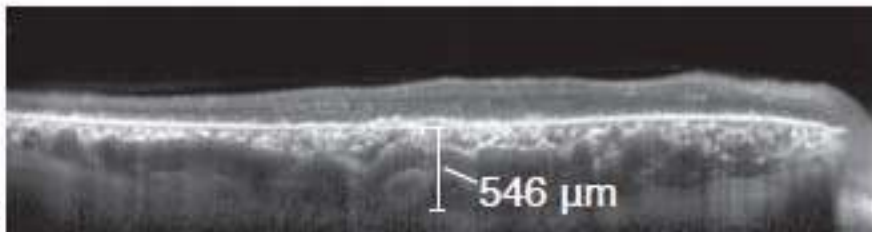
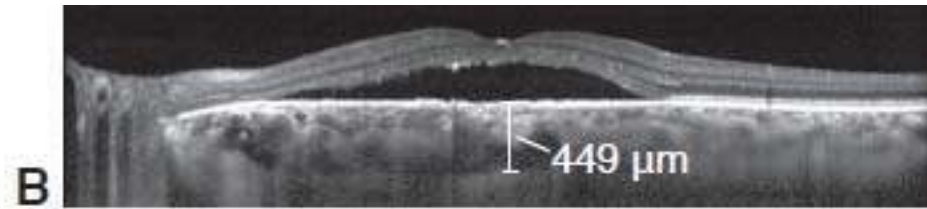
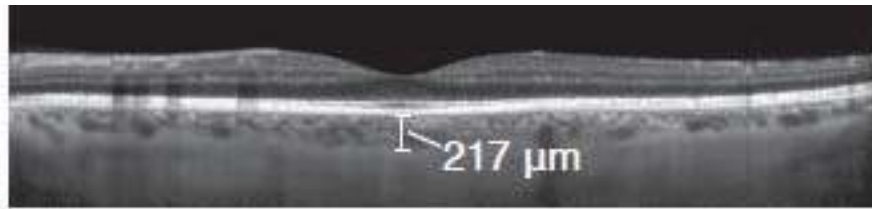
Central Serous Chorioretinopathy/Choroidopathy (CSC)



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	Size of leak relative to size of SRF area	Multiple small PED present?	Drusen present?	Blood present?	Lipid present?	Choroidal thickness c/w normal	
CSC	Leak << SRF	Yes	No	No	No	Thicker	
ARMD	Leak \approx SRF	No	Yes	Yes	Yes	Thinner	

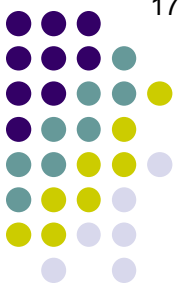
Central Serous Chorioretinopathy/Choroidopathy (CSC)



Subfoveal choroidal thickness as measured from the outer border of the RPE to the inner border of the sclera (*brackets*). *A*, a healthy eye in a 55-year-old man. *B-D*, three eyes with CSC: A 44-year-old man (*B*); a 57-year-old man (*C*); and a 63-year-old man (*D*).

Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)



Is it CSC or wet ARMD? An important distinction to make—can you make it?

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*Choroidal thickness may not be readily interpretable on spectral-domain OCT (SD-OCT).
What OCT modality is preferred for assessing the choroid?*

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



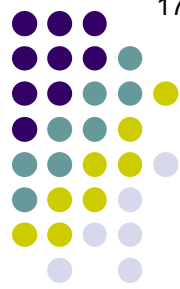
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*Choroidal thickness may not be readily interpretable on spectral-domain OCT (SD-OCT). What OCT modality is preferred for assessing the choroid?
Enhanced-depth imaging OCT (EDI-OCT; this was the modality used to create the images on the previous slide)*

Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)



Is it CSC or wet ARMD? An important distinction to make—can you make it?

	Size of leak relative to size of SRF area	Multiple small PED present?	Drusen present?	Blood present?	Lipid present?	Choroidal thickness c/w normal	Descending tracts present?
CSC	Leak << SRF	Yes	No	No	No	Thicker	?
ARMD	Leak \approx SRF	No	Yes	Yes	Yes	Thinner	?

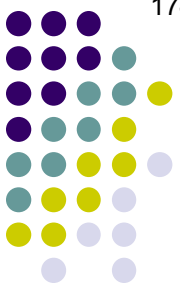
A

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Q

Central Serous Chorioretinopathy/Choroidopathy (CSC)

Is it *In the context of CSC, what are descending tracts?*

it?

							Descending tracts present?
CSC							Yes
ARMD	Leak \approx SRF	No	Yes	Yes	Yes	Thinner	No

A

Central Serous Chorioretinopathy/Choroidopathy (CSC)



Is it *In the context of CSC, what are descending tracts?* it?

Long, narrow areas of RPE change extending inferiorly from the areas of SRF

Descending tracts are best visualized via what imaging modality?

Fundus autofluorescence (FAF)

Descending
tracts
present?

Yes

ARMD

Leak \approx SRF

No

Yes

Yes

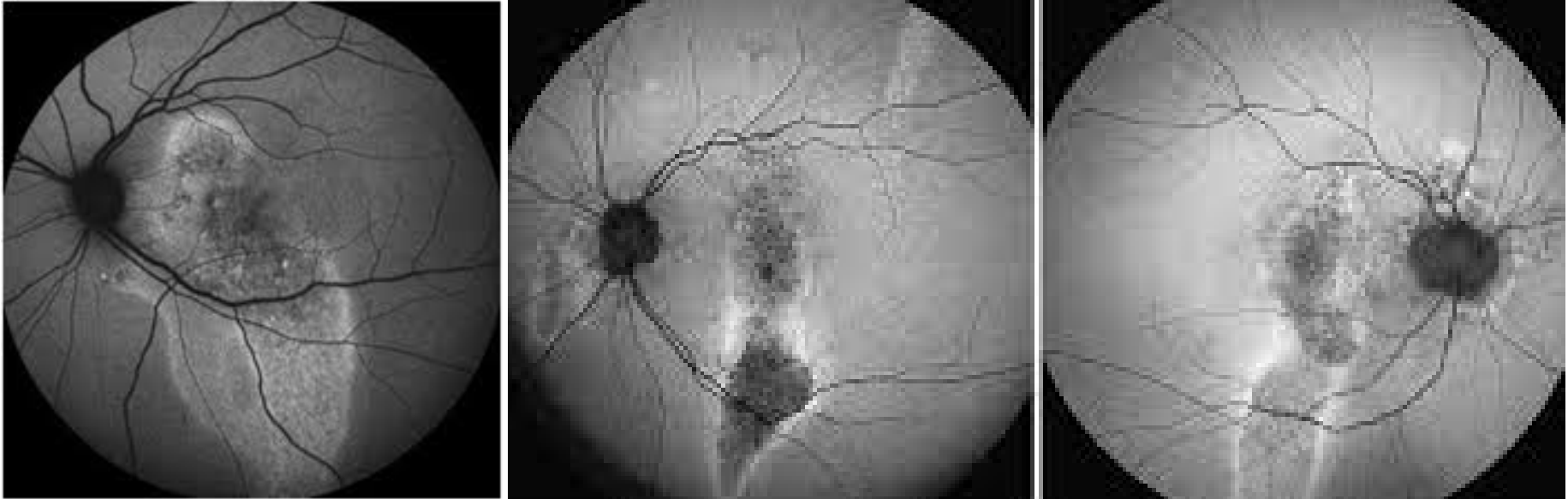
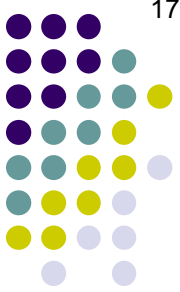
Yes

Thinner

No

CSC

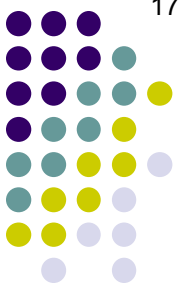
Central Serous Chorioretinopathy/Choroidopathy (CSC)



CSC: Descending tracts/guttering (FAF images)

Q

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What is the cause?

**Descending
tracts
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Yes

ARMD

Leak \approx SRF

No

Yes

Yes

Yes

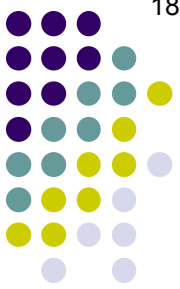
Thinner

No

CSC

A

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Gravity-dependent 'dripping' of the SRF

**Descending
tracts
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Yes

CSC

ARMD

Leak \approx SRF

No

Yes

Yes

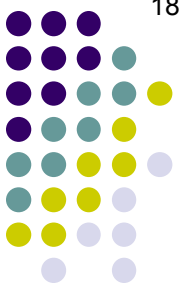
Yes

Thinner

No

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By what other name is this phenomenon known?

**Descending
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present?**

Yes

CSC

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Leak \approx SRF

No

Yes

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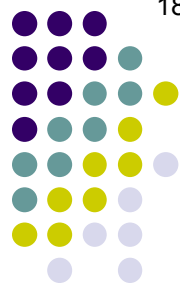
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Thinner

No

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Thinner

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To be clear: Other than 2ndry to a break in Bruch's 2ndry to laser tx (ie, iatrogenic CNVM), is CNVM associated with CSC? That is, can a CSC pt get a CNVM 'just because'?

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For the CSC cases in which no CNVM is present: What clinical finding, common to both wet ARMD and CSC, is responsible for the misdiagnosis?

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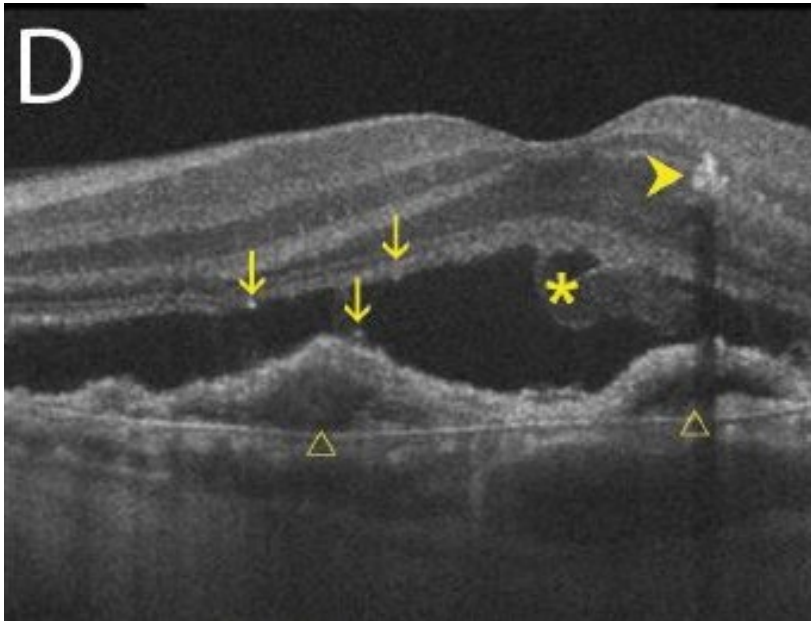
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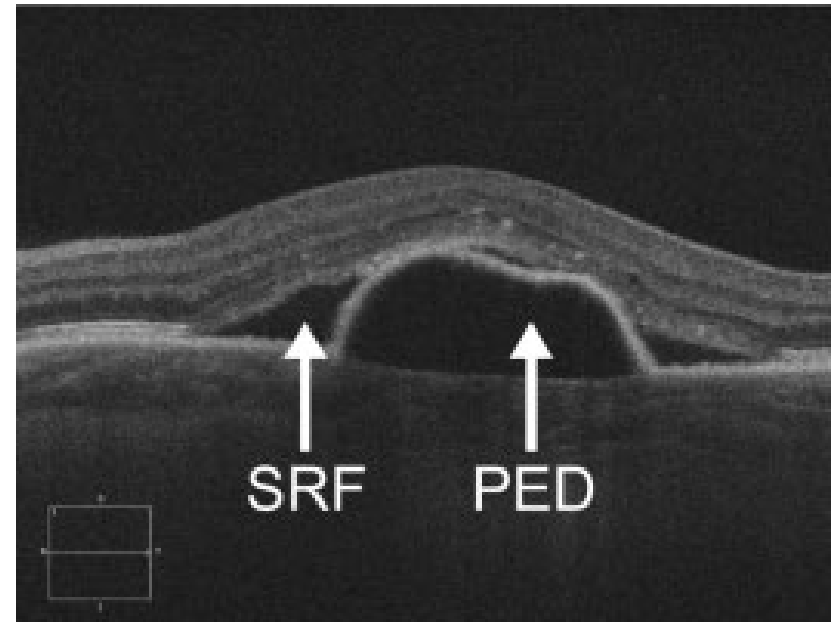
In CNVM there is usually a concomitant subretinal hemorrhage, whereas this will not be present in CSC

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ARMD: PED (Δ) and SRF (\downarrow), along with subretinal hemorrhage (*)



CSC: PED and SRF, but no hemorrhage