



**Universidade Federal de São Paulo**

# **Hemoglobinopatias**

**Nilva S. B. Moraes**

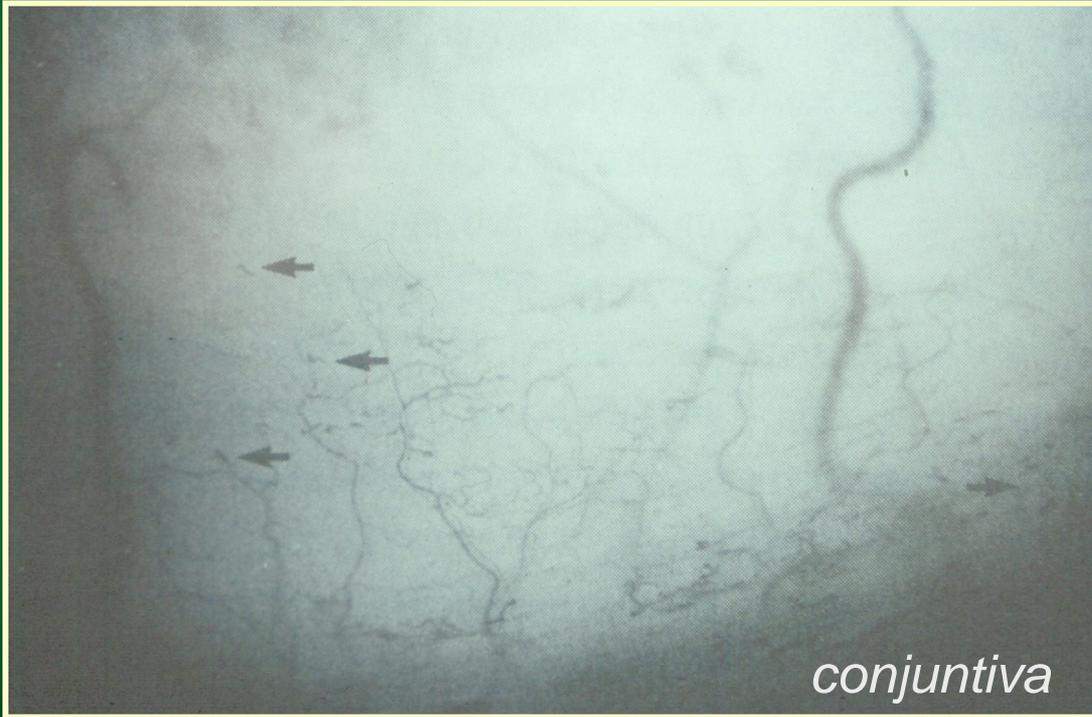


# Caráter Falciforme

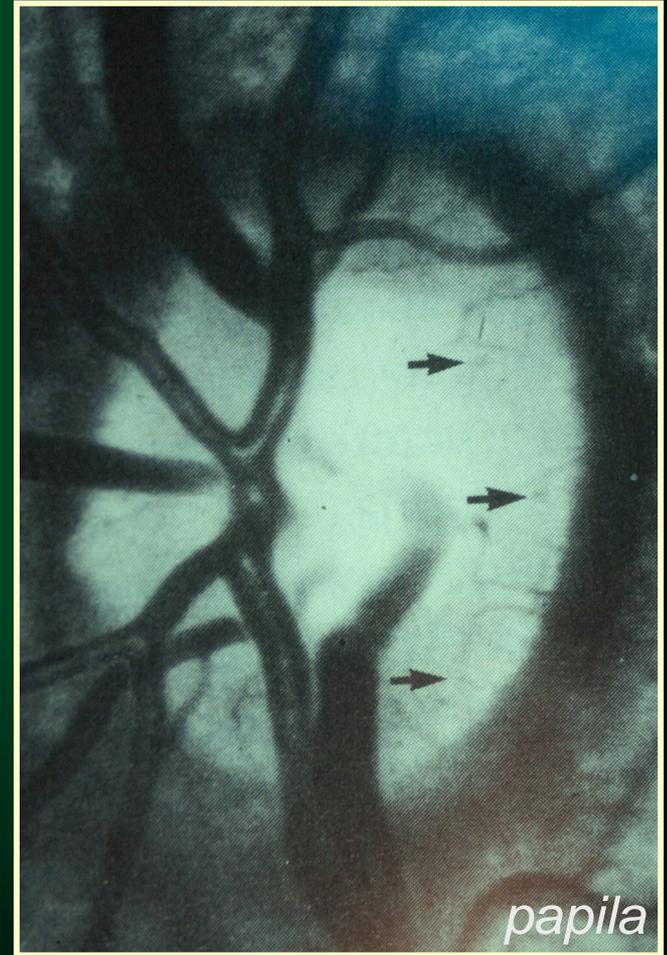
<b>Normal</b>	<b>AA</b>
<b>Portador</b>	<b>AS</b>
<b>Anemia falciforme</b>	<b>SS</b>
<b>Duplo heterozigoto</b>	<b>SC</b>
<b>Duplo heterozigoto</b>	<b>S<sup>Thal</sup></b>



# microembolia

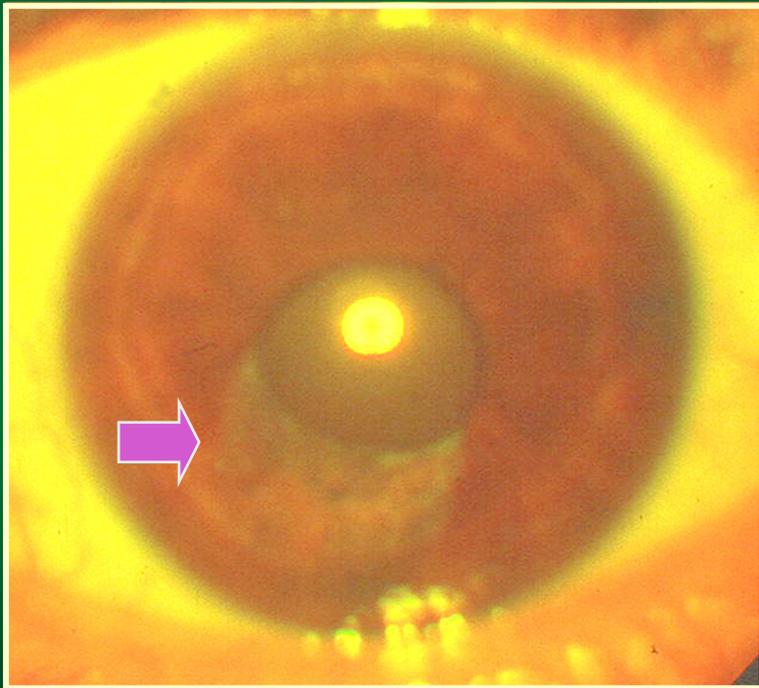


*“sinal de vírgula”*

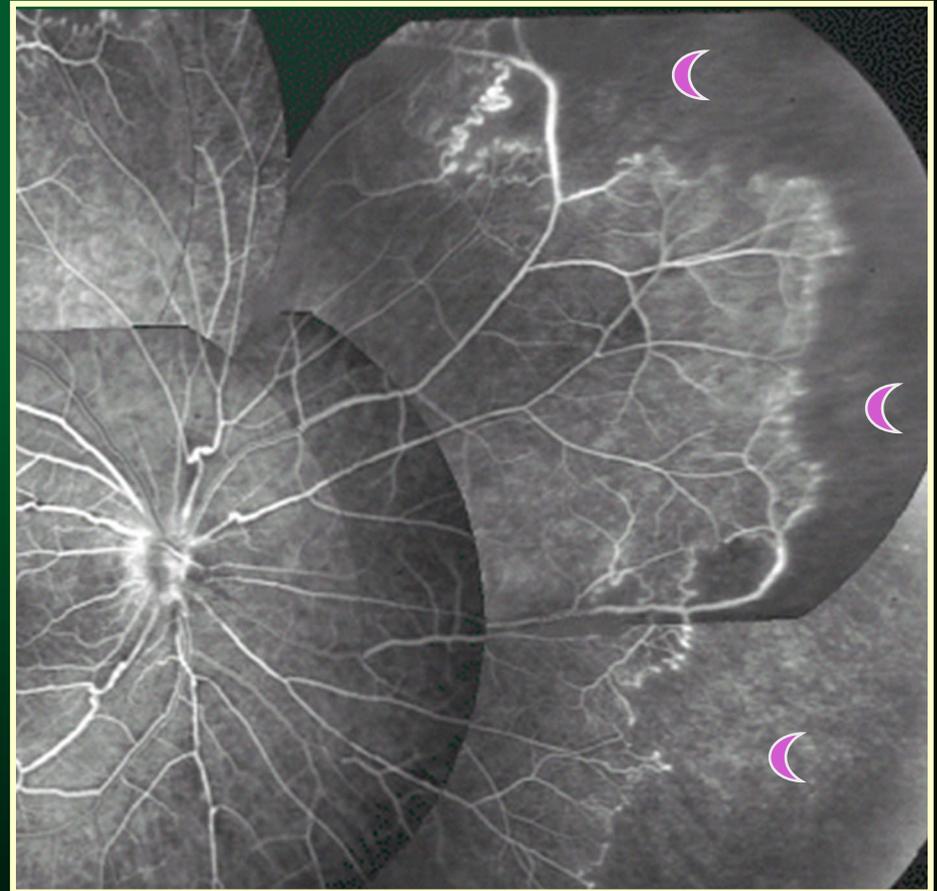




# microembolia



atrofia da íris



não perfusão capilar

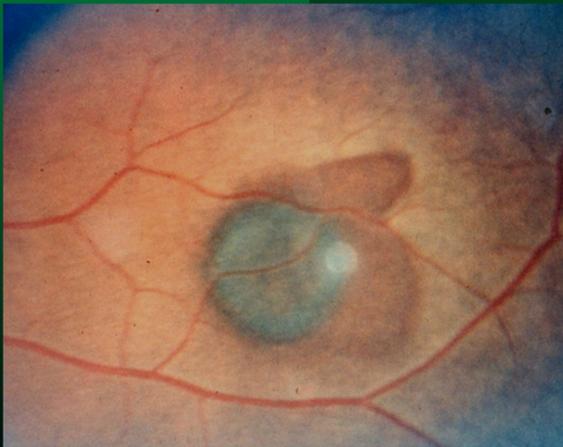
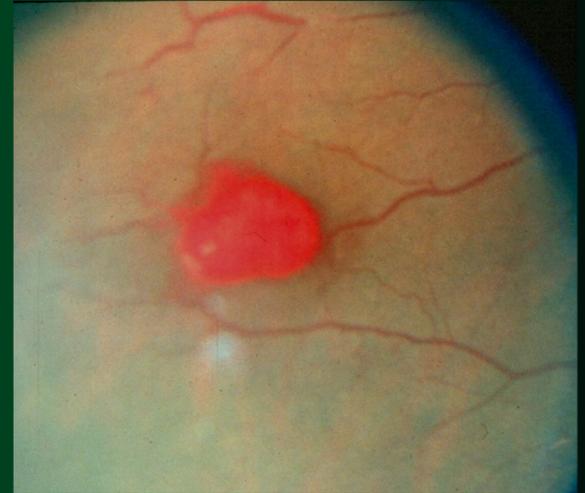


microembolia



hemorragias

*salmon patch*



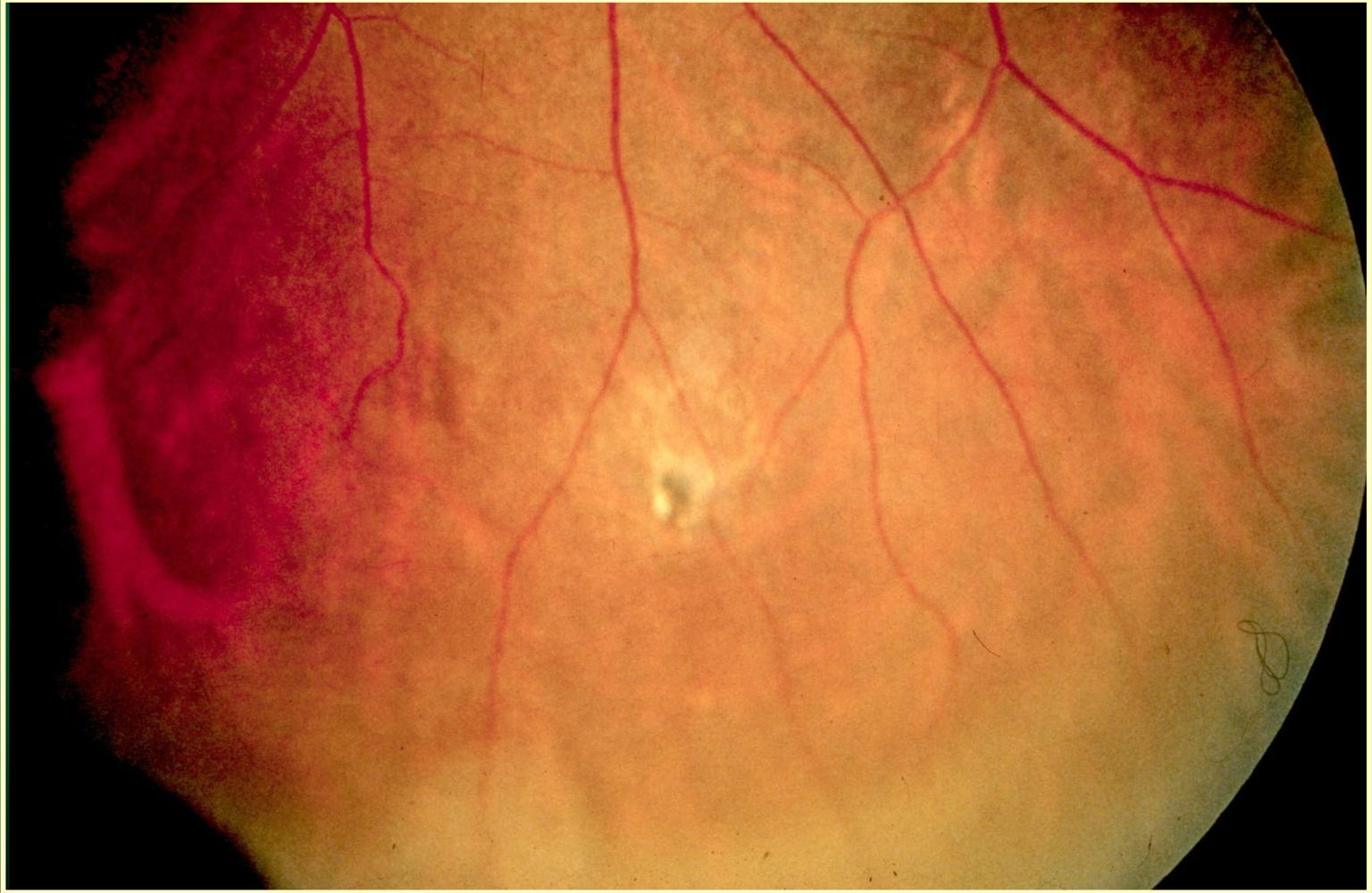


hemorragia



fagocitose hemossiderina

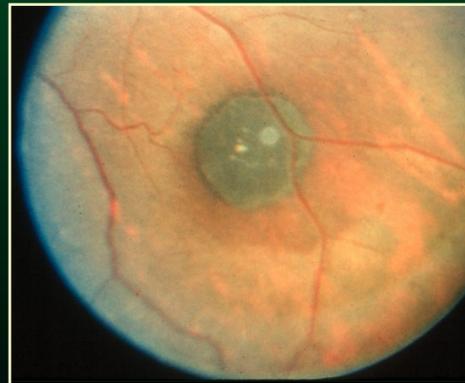
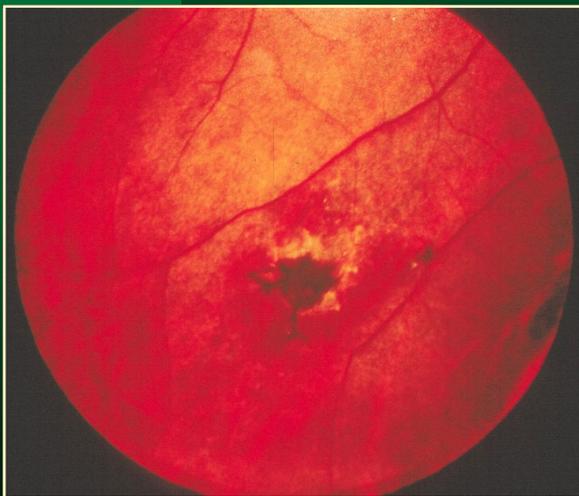
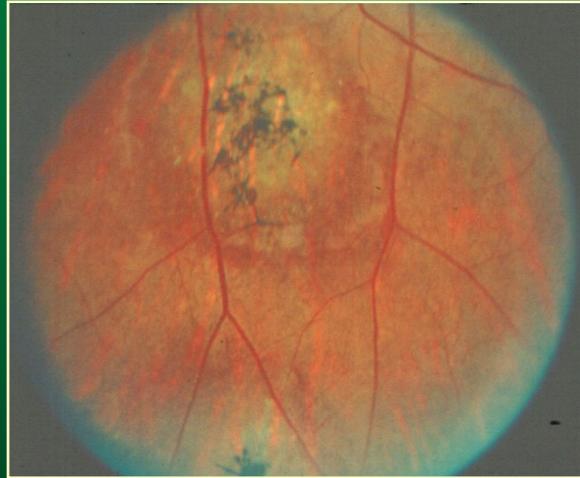
*pontos iridescentes*





hemorragias → alteração do EPR

*Black sunburst*

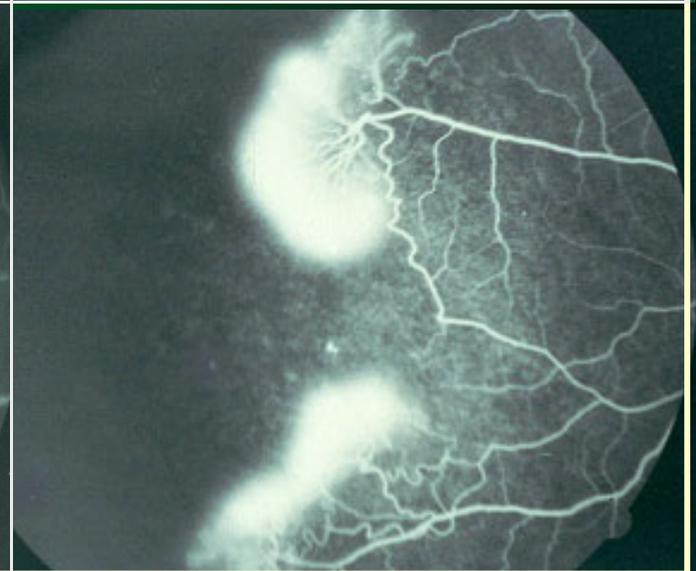
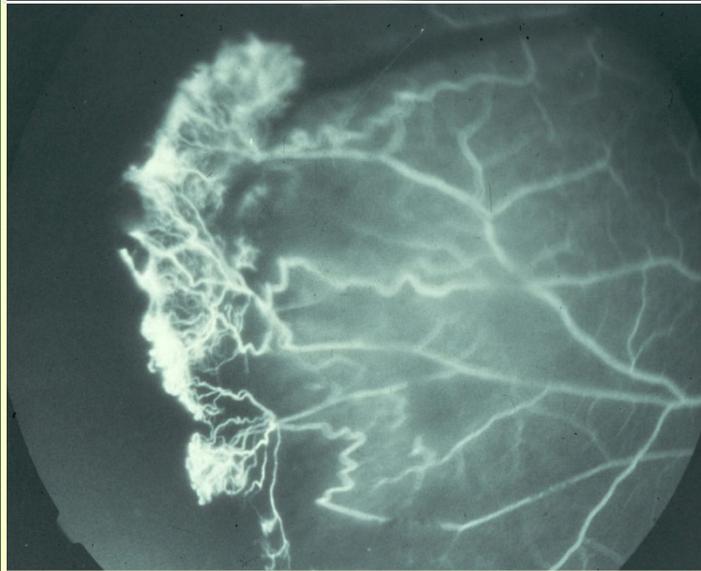
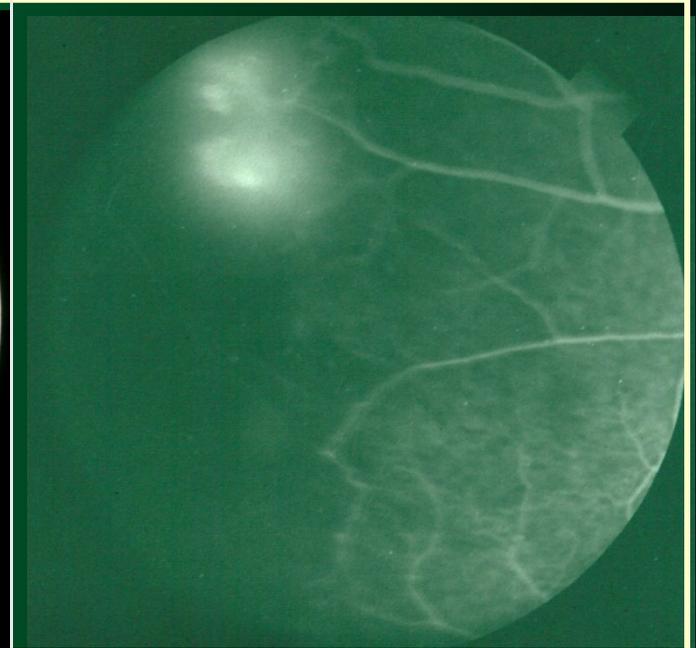
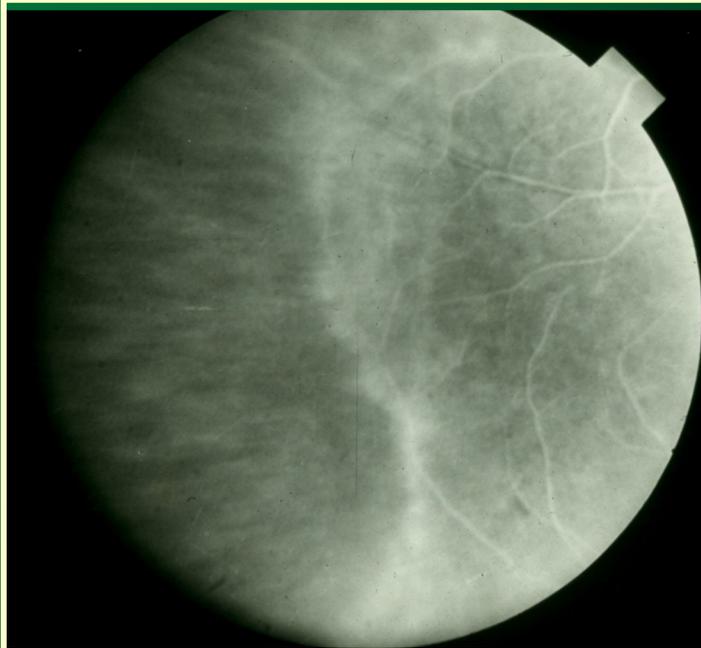


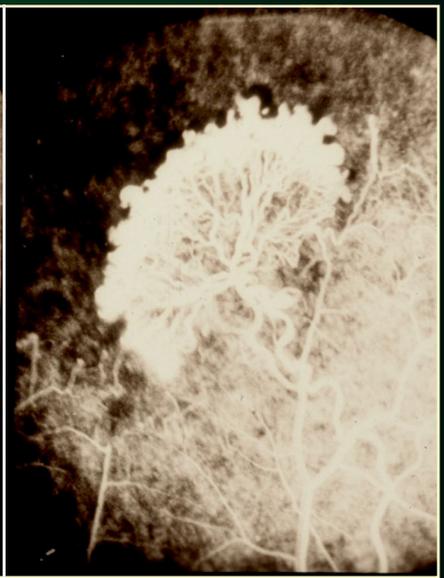
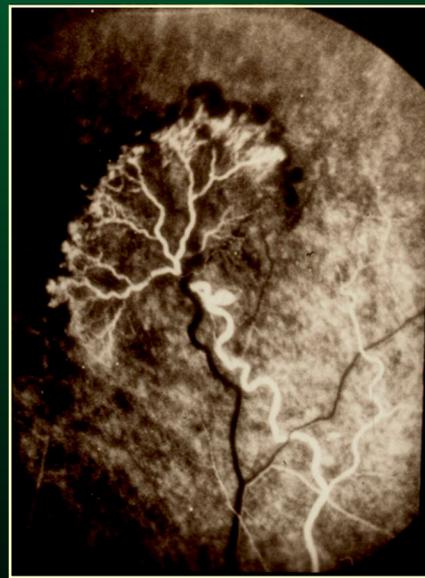
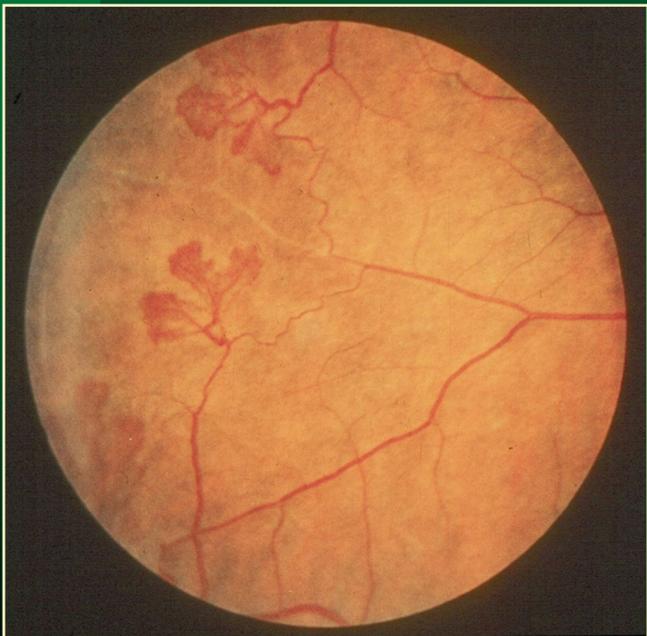
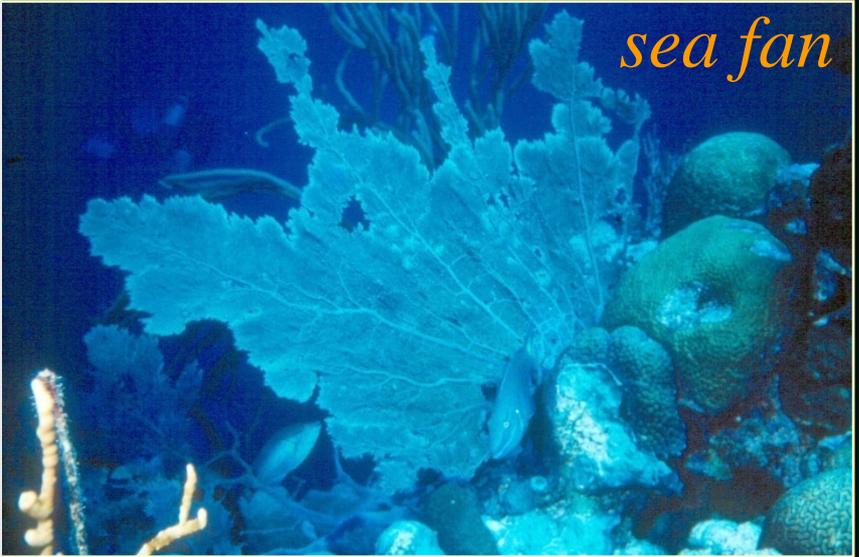


Não perfusão  
capilar

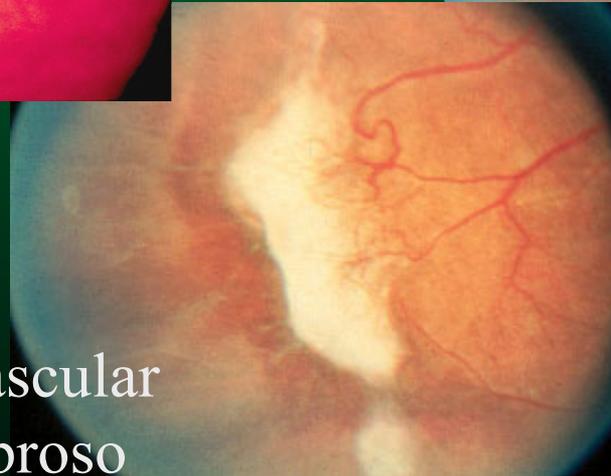
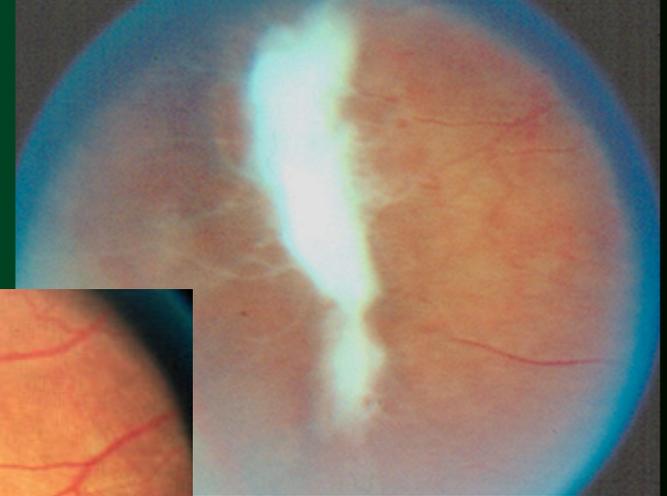
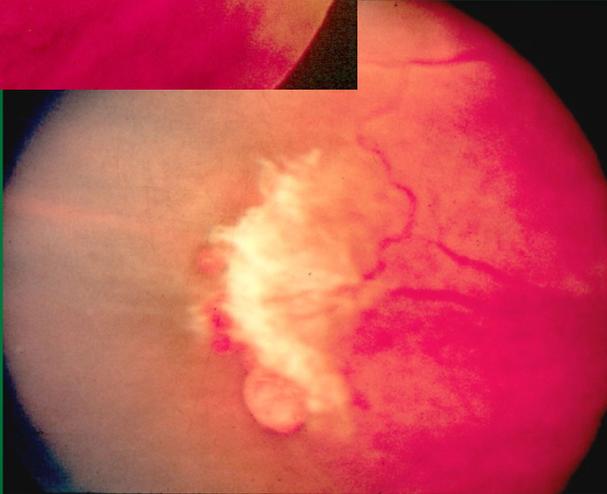


proliferação  
de  
neovasos





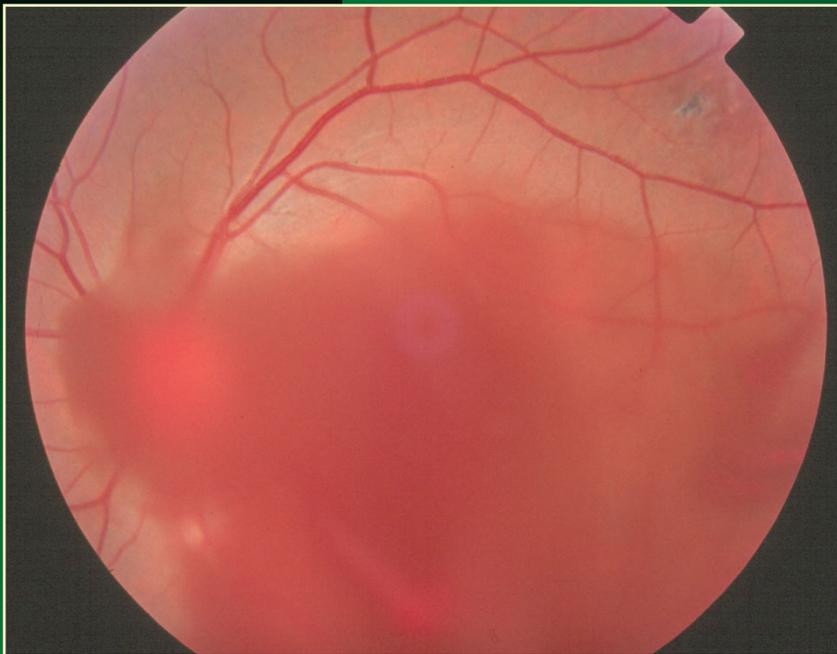
## história natural dos neovasos



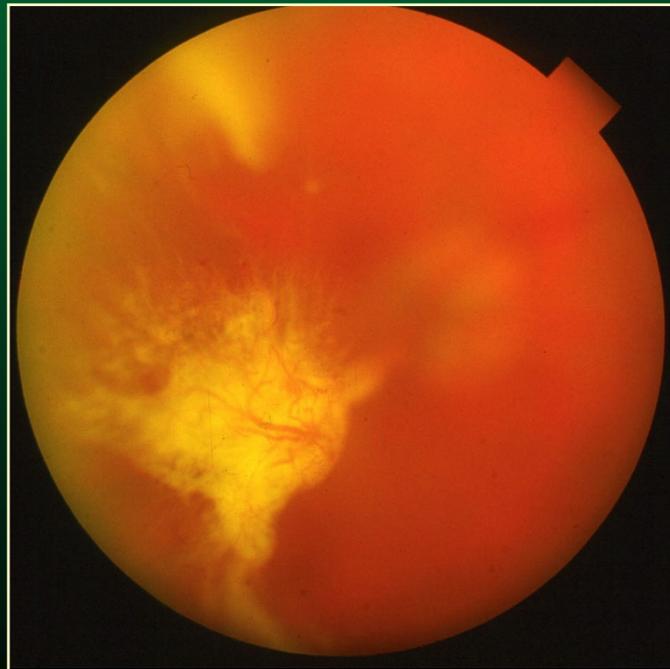
- . “*nu*”
- . predomínio de tecido vascular
- . predomínio de tecido fibroso



história natural dos neovasos

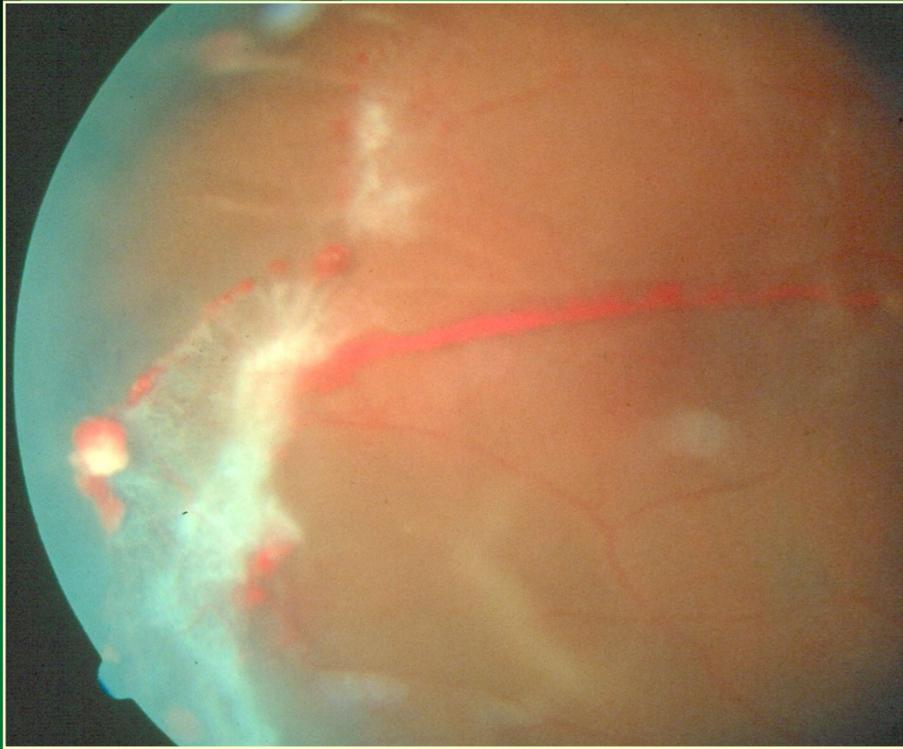


hemorragia vítrea

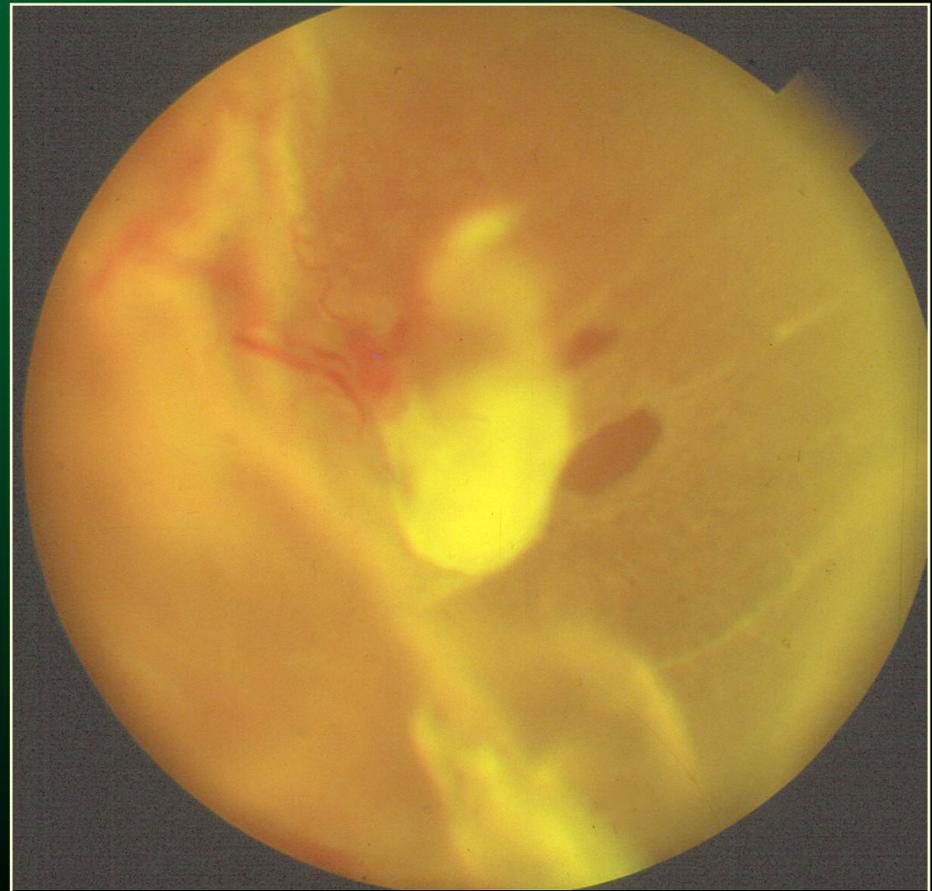


tração vítrea





DR tracional



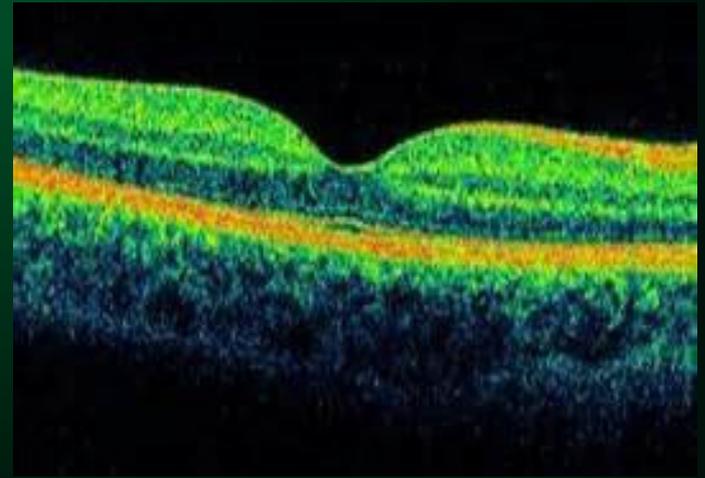
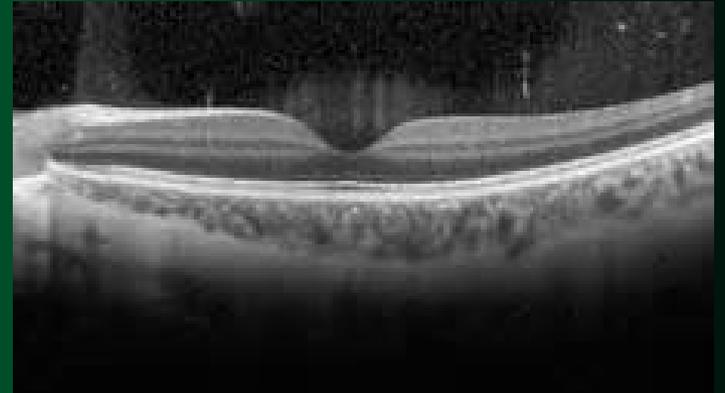
DR misto



# Tratamento

1. Destruir as áreas de não perfusão capilar
  - a. laser
  - b. Crioterapia
  
2. Hemorragia vítrea
  - a. observação
  - b. vitrectomia
  
3. Descolamento de retina
  - a. retinopexia
  - b. vitrectomia







- Pacientes selecionados tinham confirmação na eletroforese de Hb de hemoglobinopatia falciforme (SS/SC/beta talassemia)
- Submetidos a exame oftalmológico que incluiu acuidade visual (tabela de Snellen), biomicroscopia anterior e mapeamento de retina
- Excluídos do estudo pacientes com opacidade vítrea ou cristaliniana, antecedente de retinopatia da prematuridade ou doenças como HAS e DM
- Pacientes colaborativos foram submetidos a Tomografia de Coerência Óptica (OCT) com domínio espectral - Spectralis (Heidelberg Engineering, Alemanha) e retinografia (Visucam – Zeiss)
- Análise do OCT pelo B-Scan e tridimensional foram realizadas e análise qualitativa de afinamento macular focal foi definido como uma assimetria abrupta na espessura retiniana
- Mapa de espessura retiniana foi baseado no Early Treatment Diabetic Study – ETDRS incluindo subcampos correspondendo a área central, parafoveal e perifoveal superior, inferior, temporal e nasal.



- Total foram avaliados 40 indivíduos com AF e 19 controles (normais). A idade média daqueles com AF foi de 10,0 (desvio padrão = 3,3) anos comparado com 10,5 (desvio padrão = 3,8) do grupo controle ( $p=0,629$ ). Quanto a distribuição de sexo, 47,4% dos indivíduos com AF eram do sexo feminino contra 50,0% do grupo controle ( $p=0,850$ ).
- Quanto à distribuição do tipo de AF: 32 SS (80%); 6 SC (15%); 1 AS (2,5%); 1 Beta Talassemia (2,5%).
- Quanto à presença de retinopatia nos indivíduos com AF, 53 olhos (66,25%) não apresentavam sinais de retinopatia; 20 olhos (25,0%) apresentaram tortuosidade vascular; 3 isquemia periférica (3,75%); 1 black sunburst (1,25%); 2 afinamento vascular (2,5%) e 1 (1,3%) branco sem pressão.
- A Tabela 1 mostra os resultados do OCT comparando AF versus controle e a figura 1 e 2 mostra OCT do olho direito de 2 pacientes do estudo com afinamento focal



	<b>Anemia Falciforme</b>	<b>Controle</b>	<b>Valor de p</b>
<b>Central</b>	256,39 (20,84)	254,58 (18,88)	0,750
<b>Parafoveal superior</b>	344,65 (21,12)	340,05 (18,79)	0,386
<b>Parafoveal inferior</b>	343,07 (14,80)	332,27 (18,26)	0,022
<b>Parafoveal nasal</b>	345,58 (17,20)	334,00 (22,23)	0,053
<b>Parafoveal temporal</b>	330,83 (16,02)	322,13 (15,89)	0,049
<b>Perifoveal superior</b>	317,73 (13,23)	311,18 (21,20)	0,432
<b>Perifoveal inferior</b>	309,40 (17,14)	300,96 (17,17)	0,107
<b>Perifoveal nasal</b>	326,05 (15,05)	319,75 (19,14)	0,252
<b>Perifoveal temporal</b>	293,24 (11,09)	291,60 (23,12)	0,789

