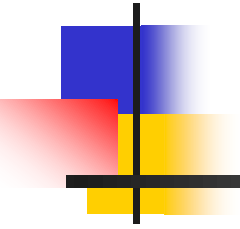


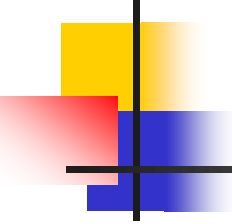
RETİNA VEN TIKANIKLIĞI TEDAVİSİNDE CERRAHİNİN YERİ VAR MI?

Dr. Şengül Özdek



RETİNA VEN TIKANIKLIĞI'NA BAĞLI **MAKKÜLA ÖDEMİNİN** TEDAVİSİNDE CERRAHİNİN YERİ VAR MI?

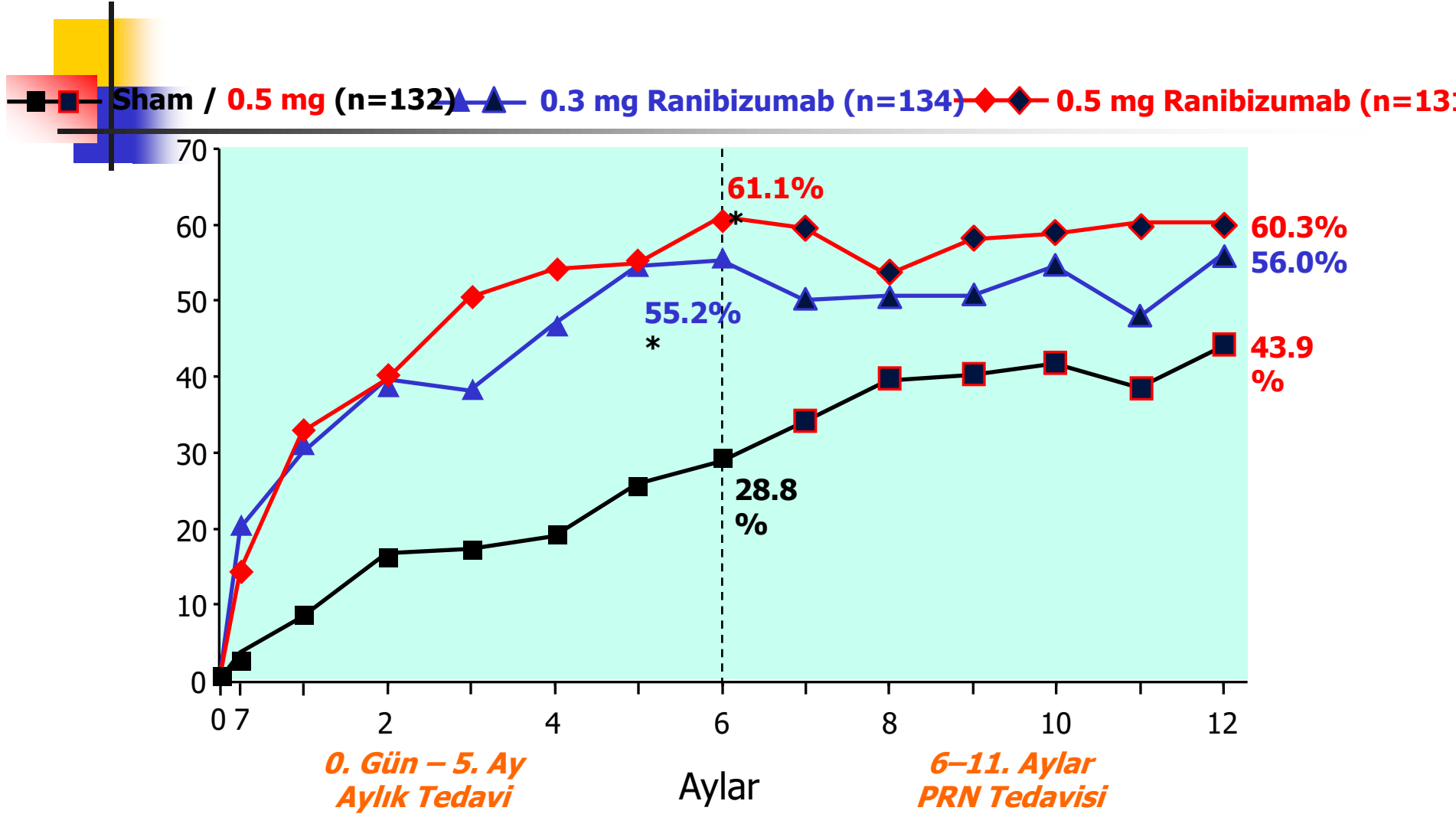




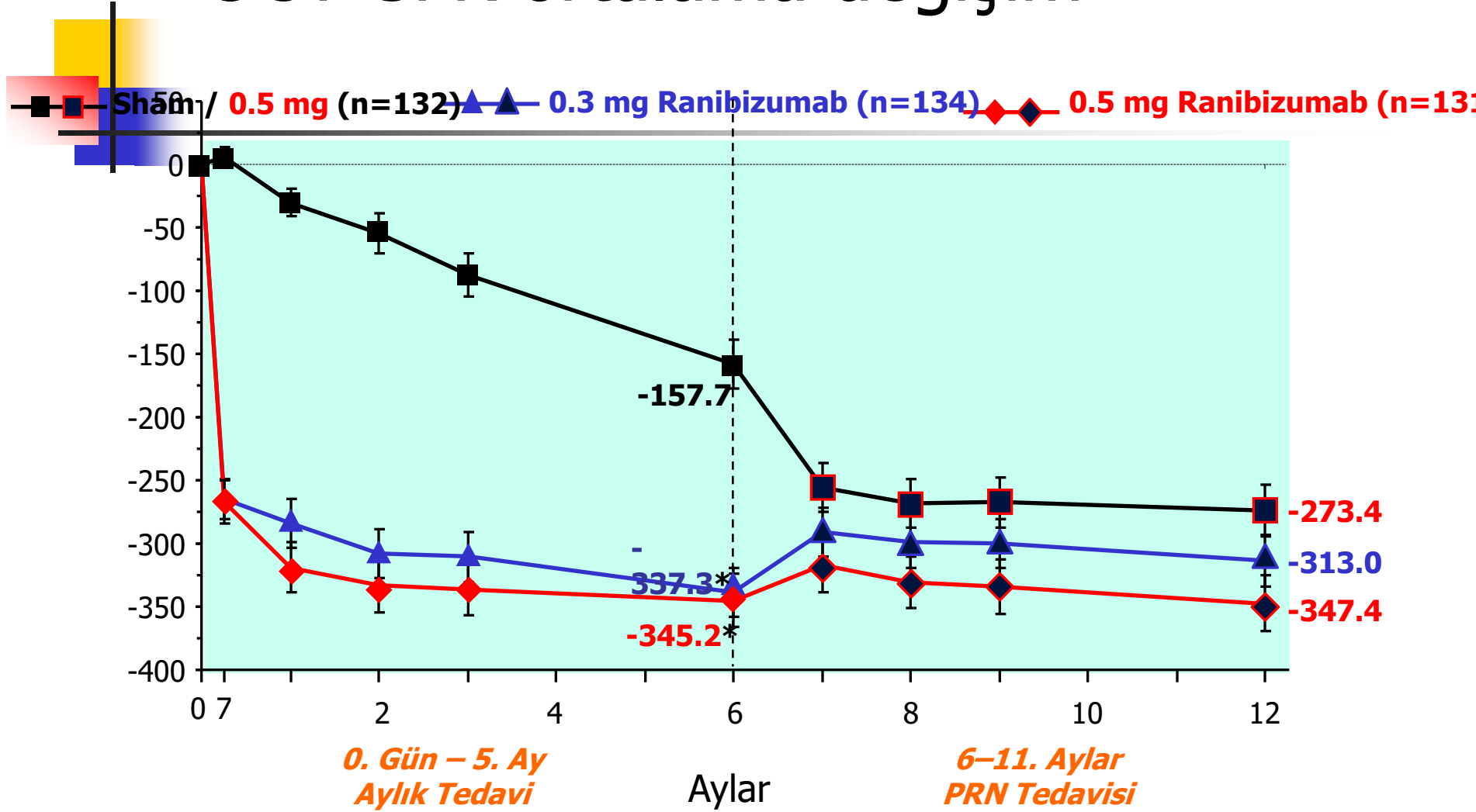
RETİNA VEN DAL TIKANIKLIĞI MAKÜLA ÖDEMİ

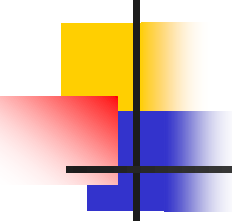
- GRID LASER
- IV STEROİDLER
- IV ANTI-VEGF
- PERİFERİK İSKEMİK ALANLARA LASER?
- CERRAHİ???

GK'de ≥ 15 harf kazanan hasta oranları



OCT-SFK ortalama deęiřim

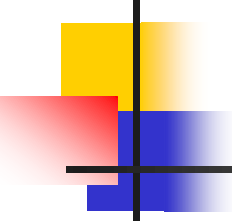




IV FARMAKOTERAPİ

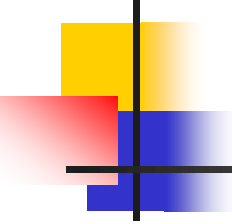
- Altta yatan nedene yönelik değil!
- Yıllarca aylık tedavi gerektirebilir!
- Cevapsız vakalar!

- CERRAHİ



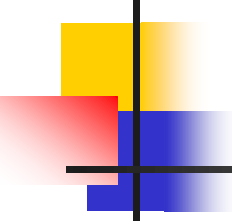
CERRAHİ

- SHEATHOTOMY
- KORİORETİNAL ANASTOMOZ
 - LASER / CERRAHİ
- RETİNAL VEN KANÜLASYONU
- PPV +/- ILM SOYULMASI



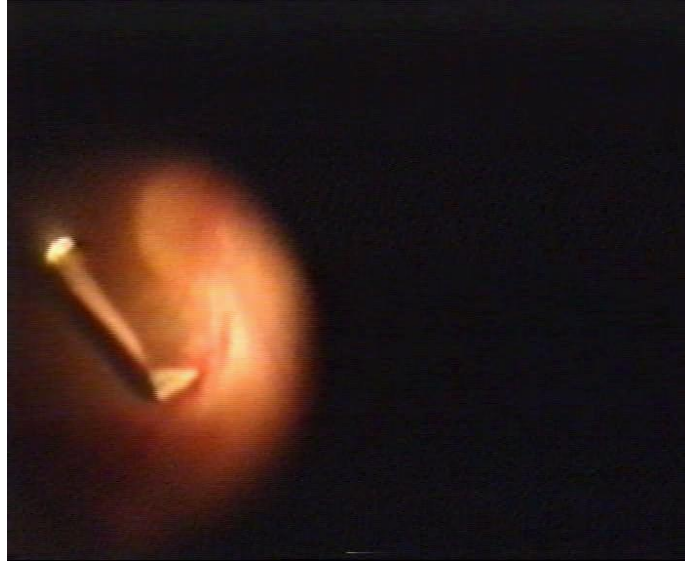
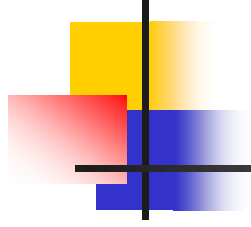
SHEATHOTOMY

- Arterioskleroz: Arter duvarında kalınlaşma
- A-V ortak kılıfta vene baskı
- Vasküler endotel hasarı ve tromboz

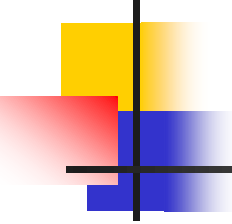


SHEATHOTOMY

- Osterloh ve Charles: 1988
 - Bir hastada: G: 20/200 den 20/25
- Teknik:
 - PPV
 - Arka hyaloid ayrılması
 - A-V çaprazlaşmada ortak adventisyal kılıfın ayrılması
 - ILM soyulması?

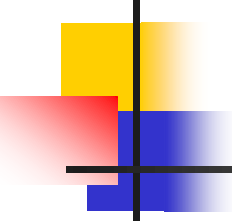


Prof. Dr. Gökhan Gürelük'in arşivinden



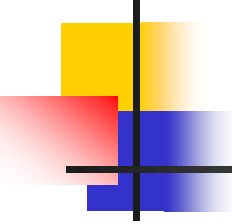
SHEATHOTOMY-Lehine

- Opremcak ve Bruce (1999)
 - 15 göz: >4 sıra artış: %67
- Mester ve ark (2002): 43 cerrahi / 25 kontrol
- Mason ve ark (2004): 20 cerrahi / 20 kontrol/grid
 - Maküler iskemi: GK↓
 - GK: 20/63 vs 20/125



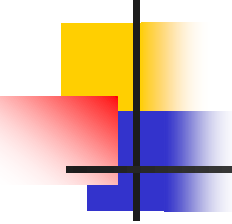
SHEATHOTOMY-aleyhine

- Figueroa ve ark: 15 sheathotomy / 20 PPV
 - Fark yok!
- BRVO Study: Kontrol grubunda %36 >2 sıra artış.
- Yamaji ve ark: 15/18'inde GK↑, 11/18'inde reperfüzyon belirtisi (+)



Bilinmeyenler

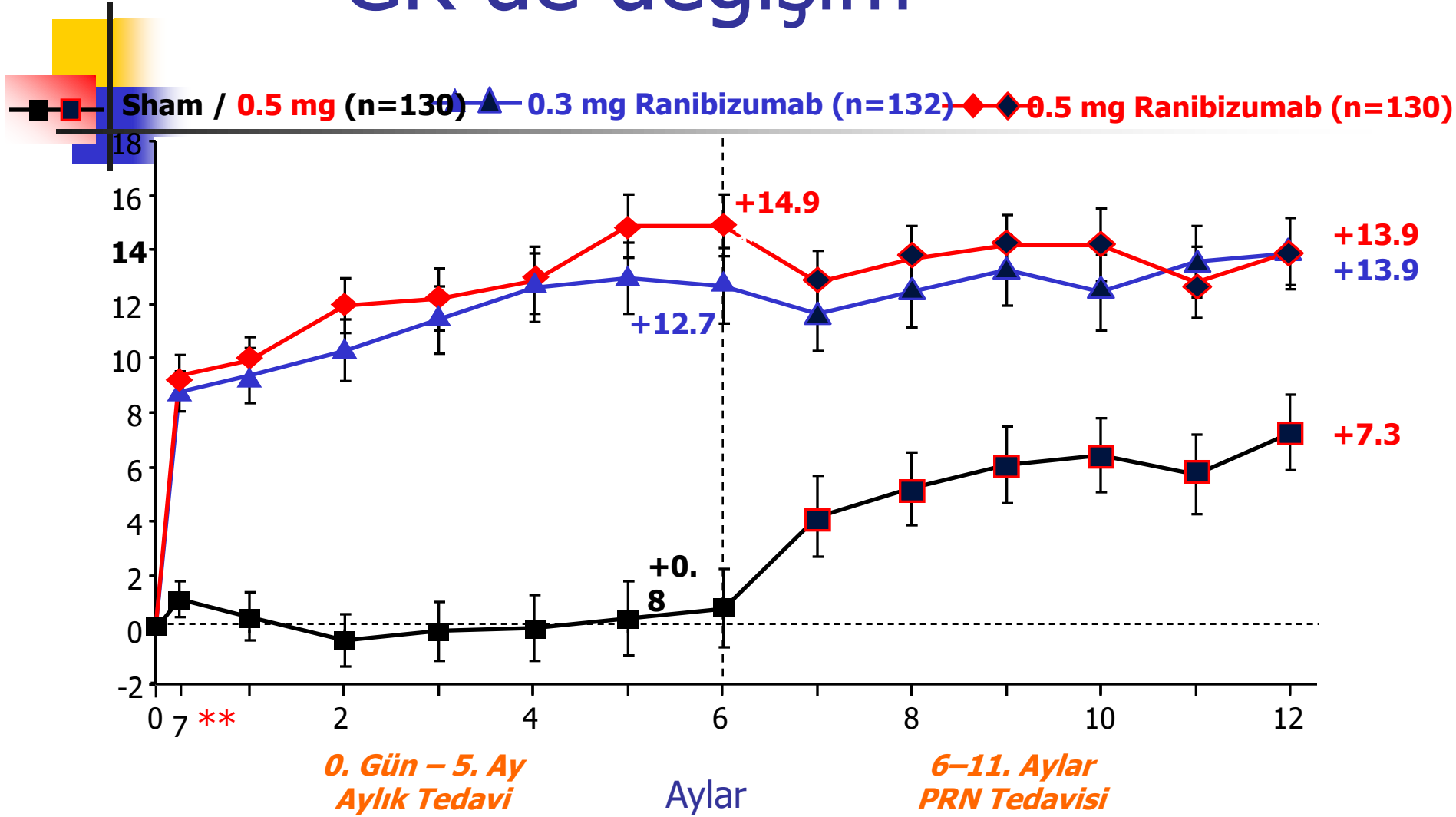
- Anti-VEGF vs Sheathotomy?
- Kimlere uygulanmalı?
- Zamanlama?



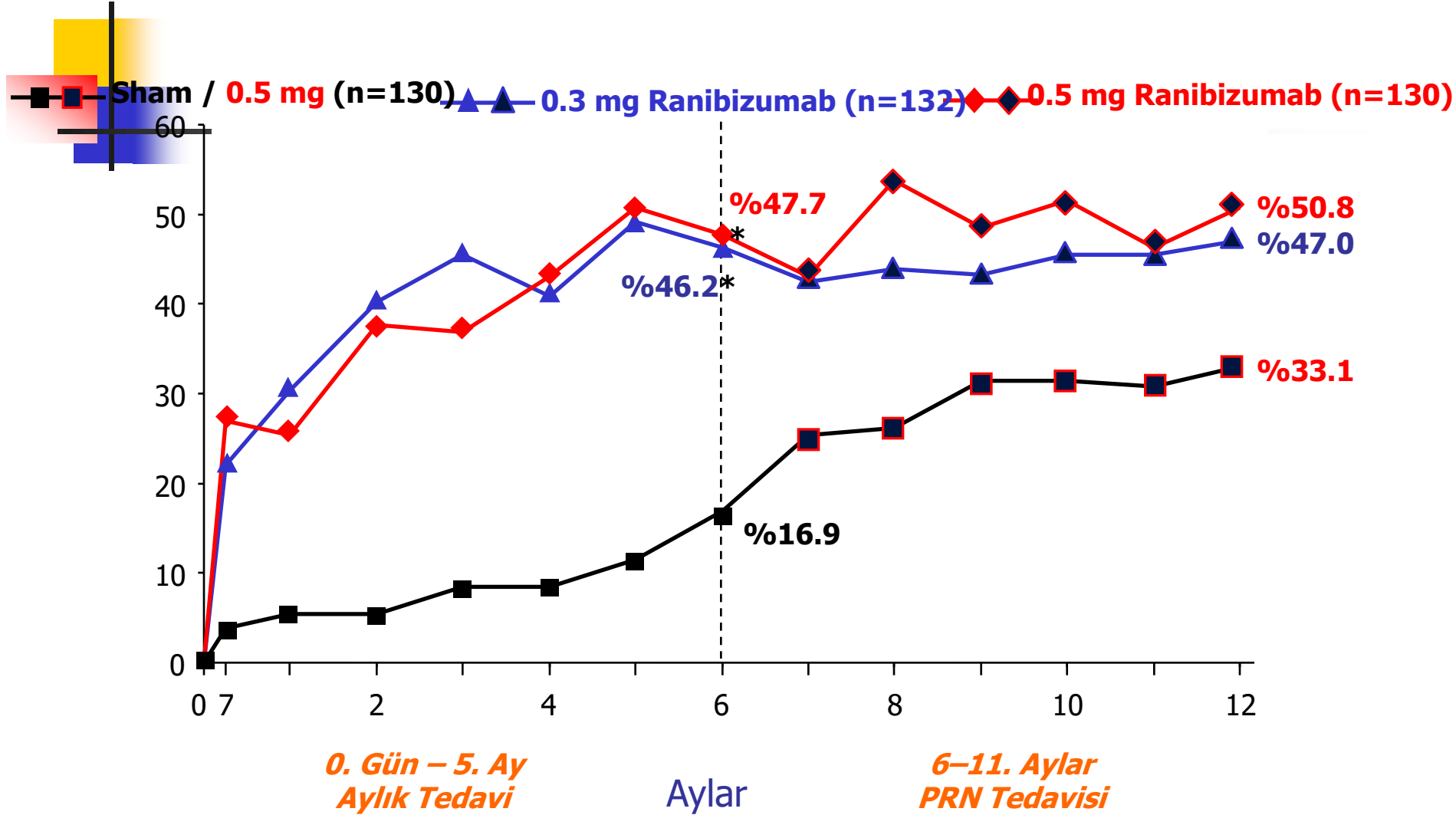
SANTRAL RETİNAL VEN TIKANIKLIĞI

- IV STEROİDLER
- IV ANTİ-VEGF'LER
- PERİFERİK İSKEMİK ALANLARA LASER?
- CERRAHİ TEDAVİLER

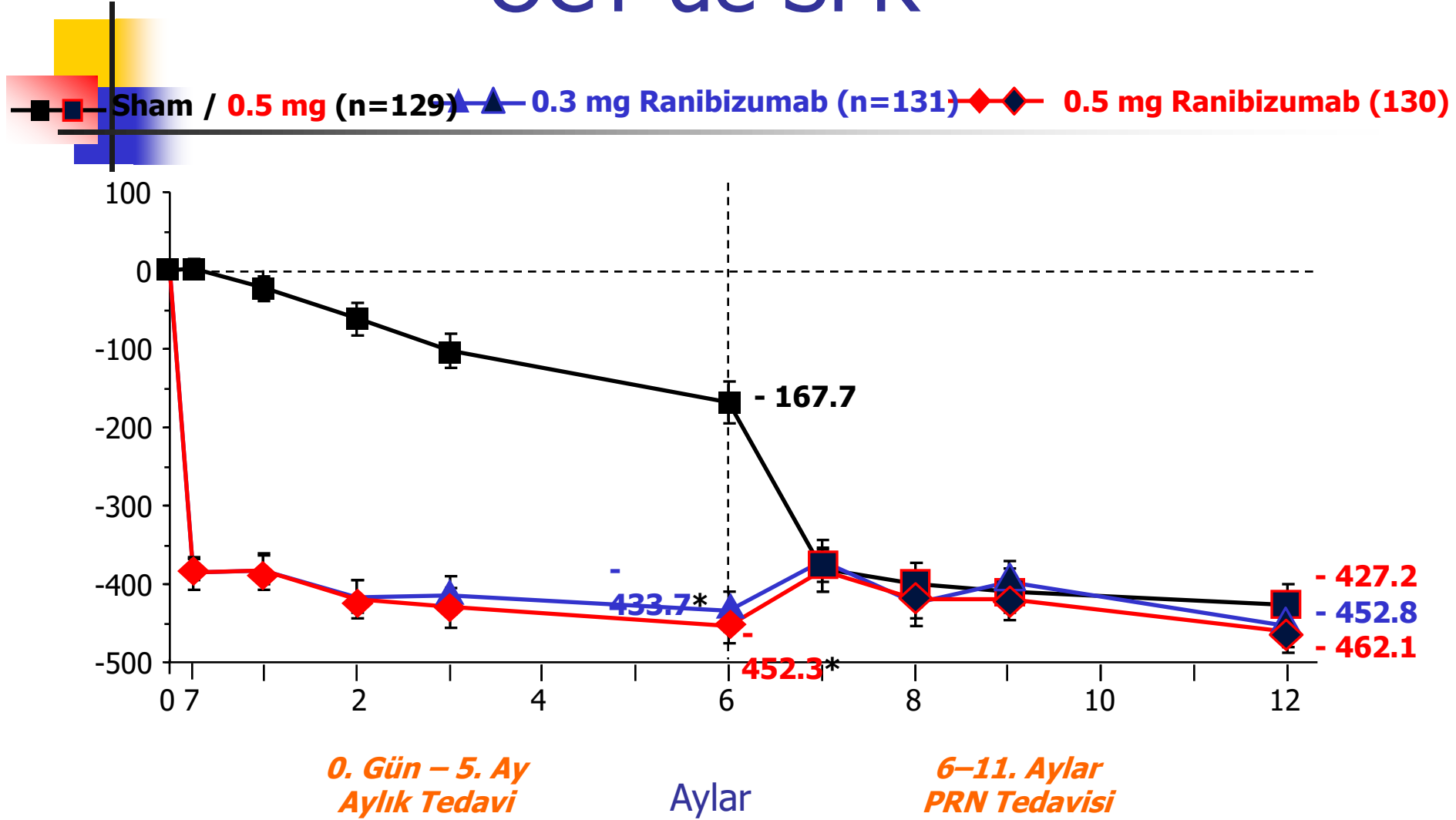
GK de deęişim

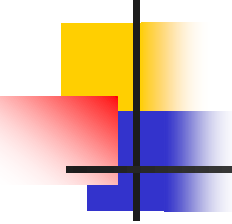


GK $\geq$ 15 harf kazananlar



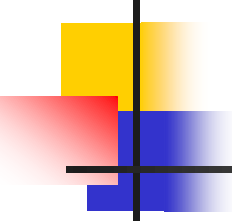
OCT de SFK





CERRAHİ TEDAVİLER

- KORİORETİNAL ANASTOMOZ
 - LASER / CERRAHİ
- PPV +/- ILM SOYULMASI
- OPTİK SİNİR KILIF DEKOMPRESYONU
 - RADİAL OPTİK NÖROTOMİ (RON)
 - OPTİK SİNİR KILIF DEKOMPRESYONU??
- RETİNAL VEN KANÜLASYONU



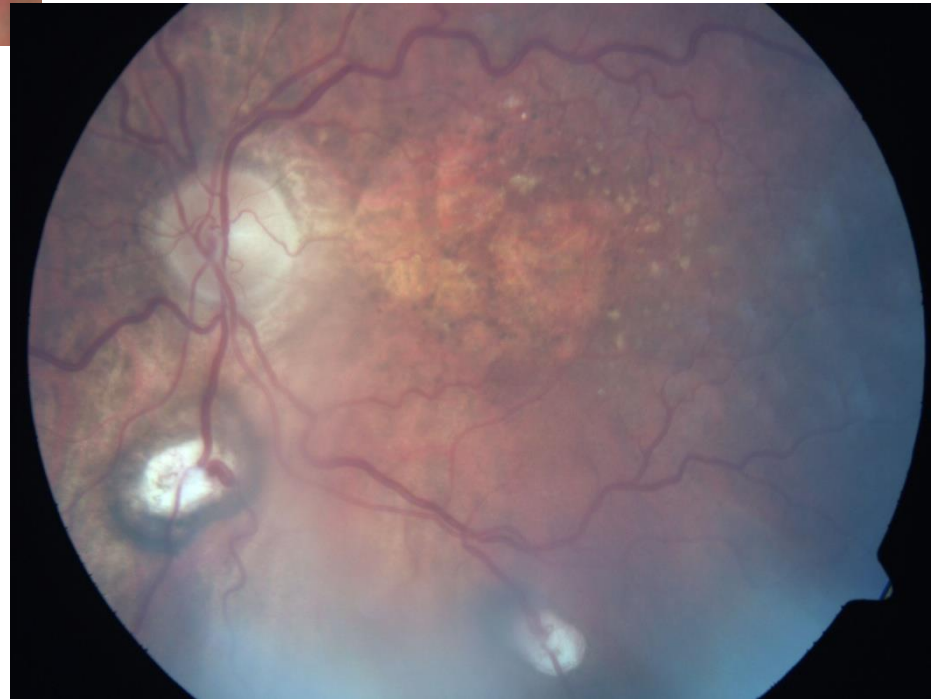
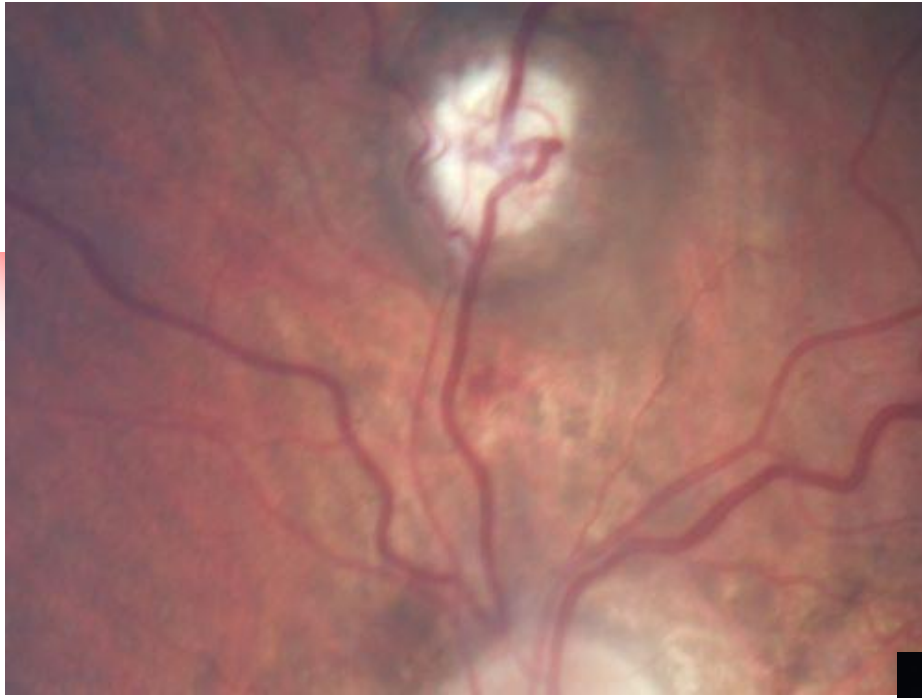
KORİORETİNAL ANASTOMOZ

- LASER:

- Nazalden: Retinal ven kenarında Bruch membranda rüptür oluştur
- Argon laser (1.5-2.5W)
- YAG laser ile ven duvarında açıklık

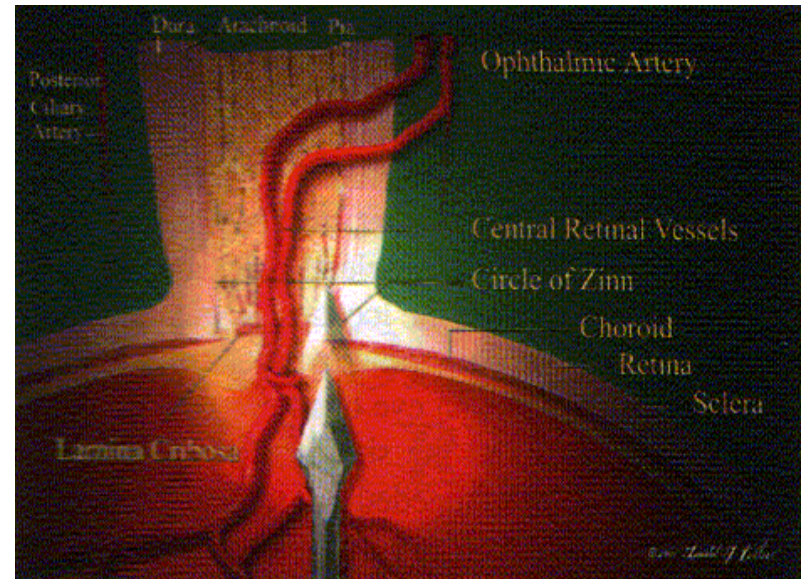
- CERRAHİ:

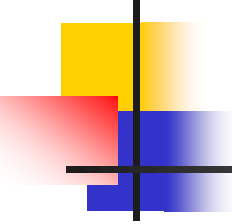
- PPV-6 noktada ven duvarı-Bruch membranında puncture



Optik sinir dekompresyonu

- Skleral outlet: şişe boynu benzeri konfigürasyon
 - Dış çap: 3-3.5mm
 - İç çap 1.5-2mm
- Skleral outlet kompartman sendromu

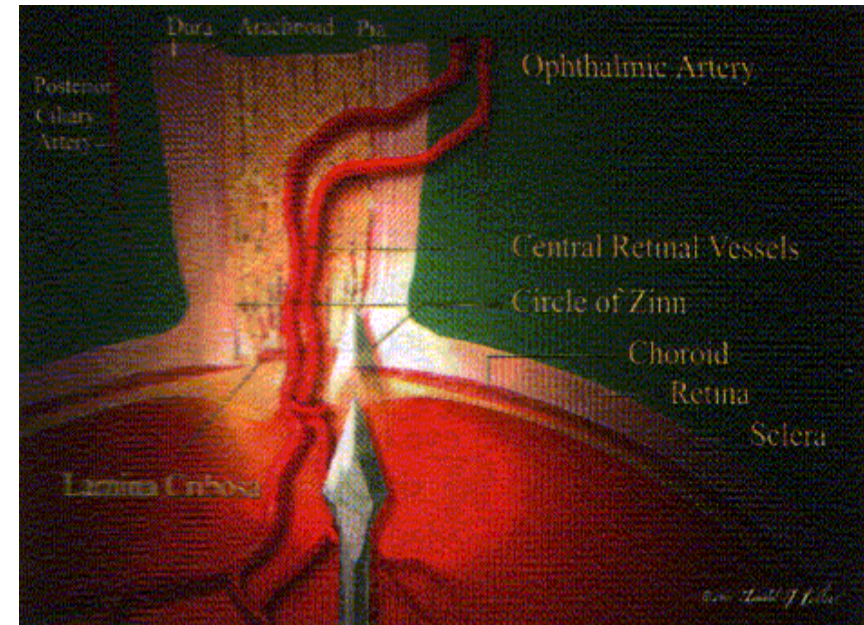
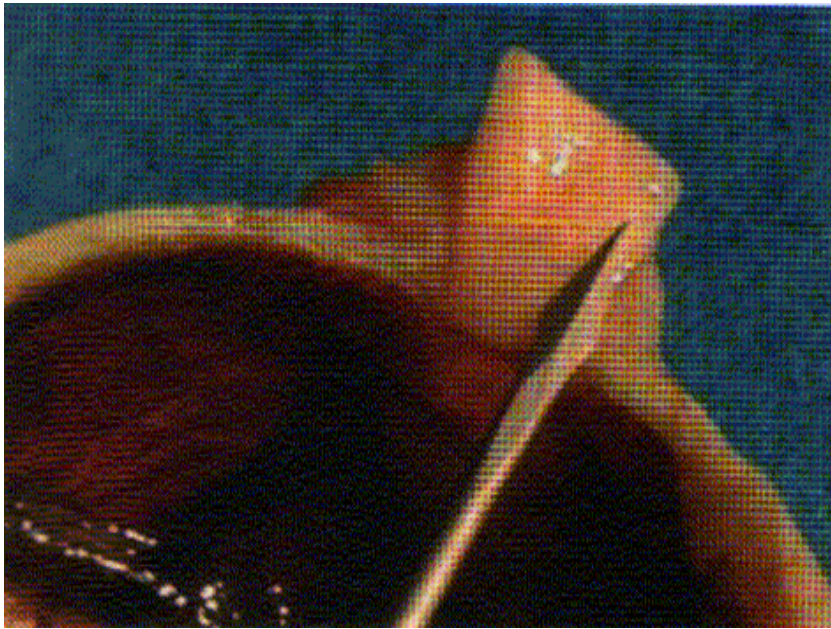


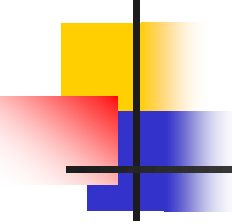


Optik sinir dekompresyonu

- Optik sinir kılıf dekompresyonu????
- RON

RON



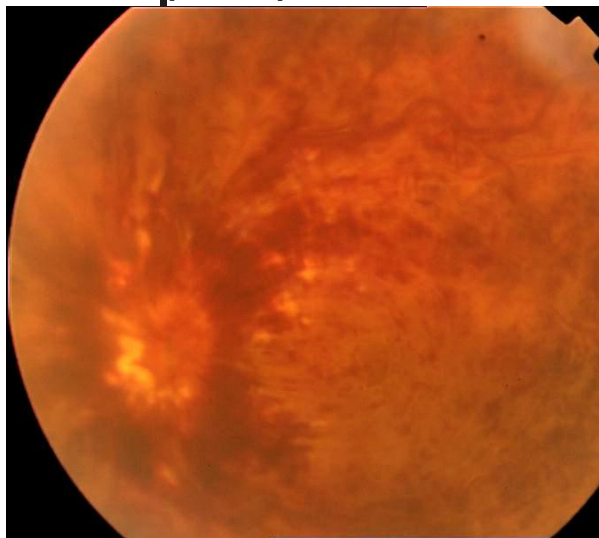


RON

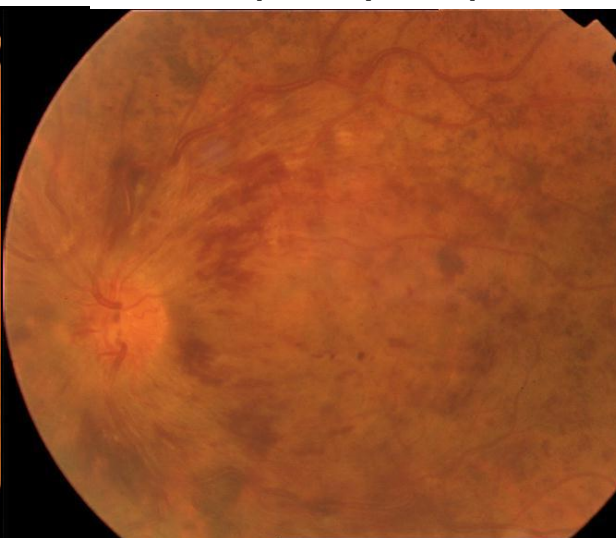


Prof. Dr. Berati Hasanreisoğlu'nun arşivinden

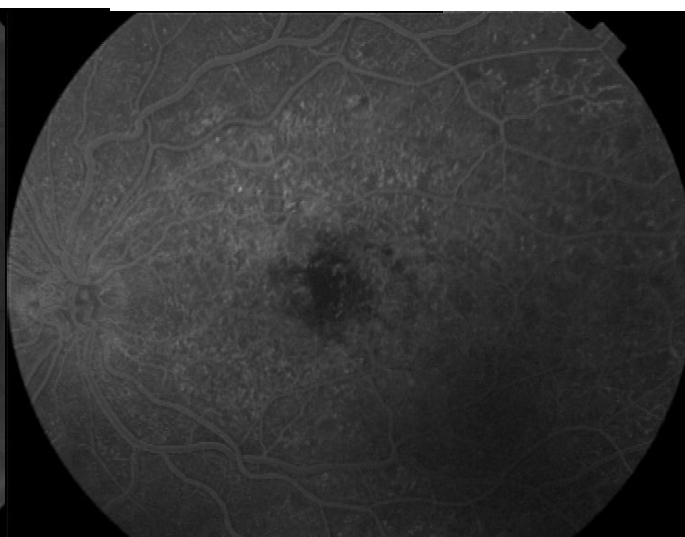
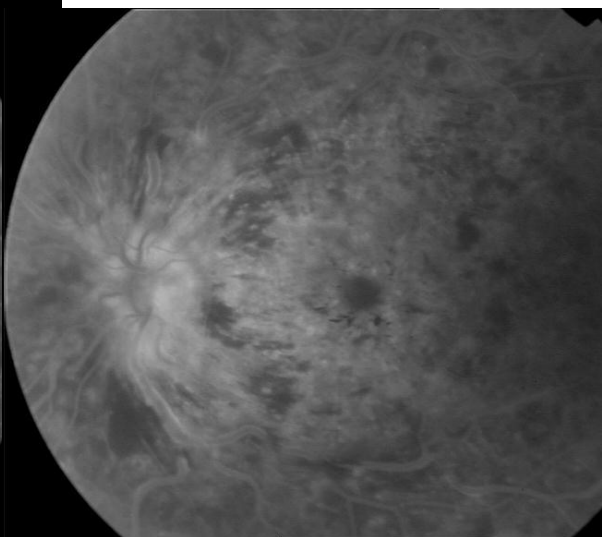
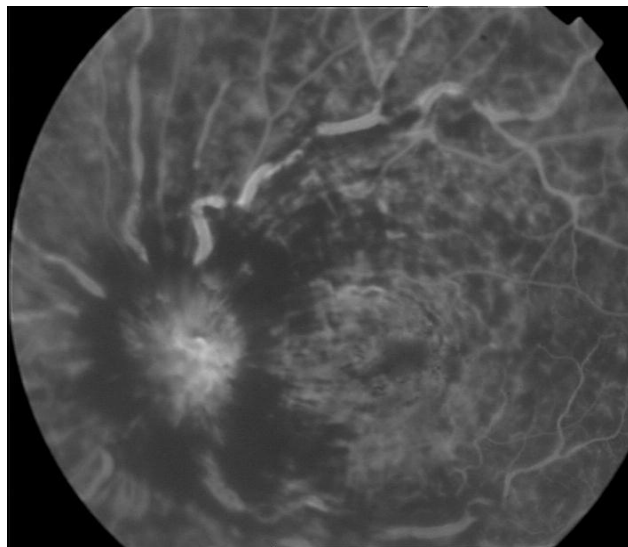
Preop 1mps



Postop 2.ay 2mps

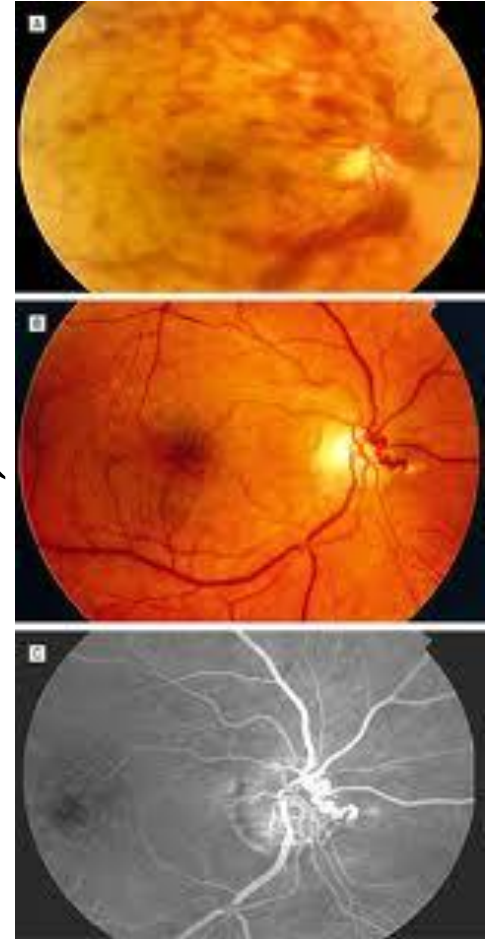


Postop 10.ay 0.05

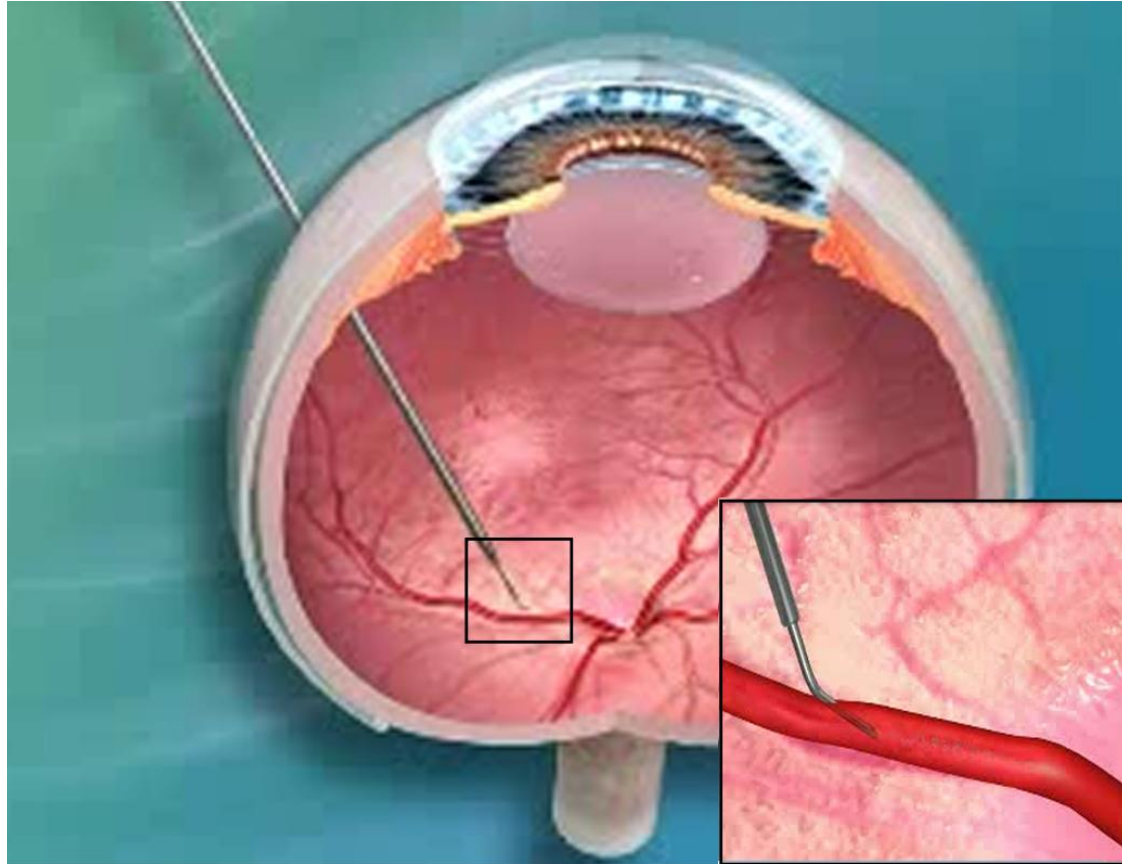


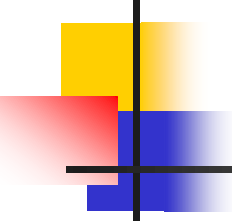
RON

- Opremcak: 2001
 - 11 gözde, %73 GK↑
- GK↑ nedenleri
 - PPV-AH Ayrılması: oksijenizasyon ↑
 - K-R anastomoz oluşumu
- RKÇ yok!



Retinal Ven Kanülasyonu





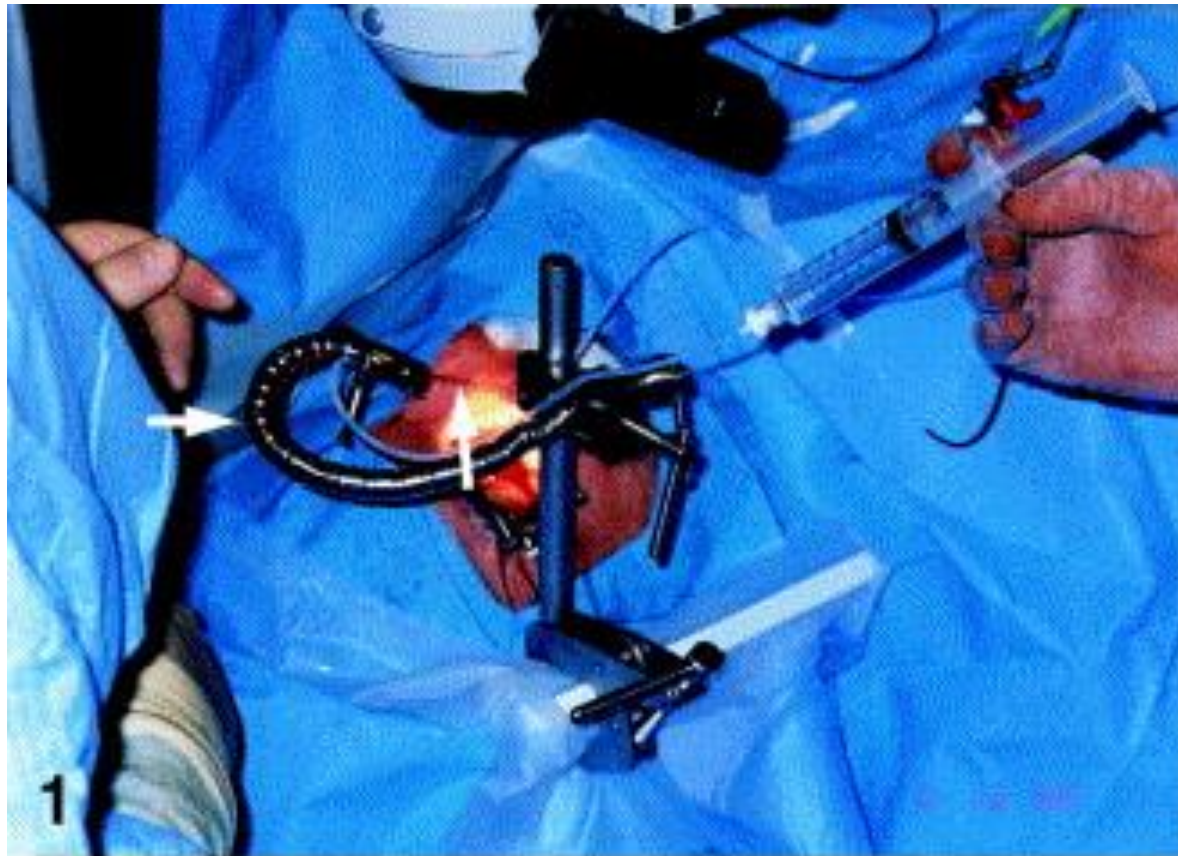
Retinal Ven Kanülasyonu

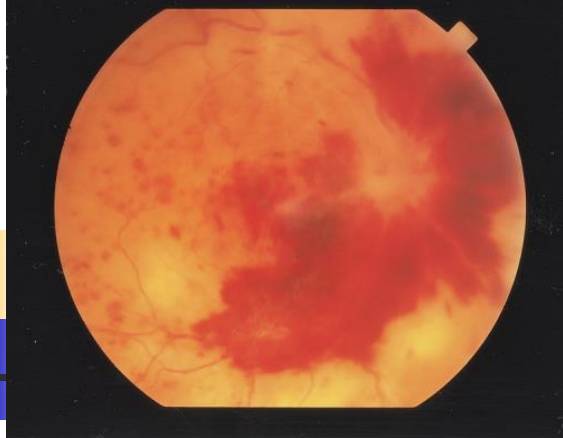
- Trombolitikler
- Mikrokateter ile intraluminal tedavi?
 - Direk trombüse ulaşır
 - Daha düşük doz
 - Mekanik etki ile trombüsü uzaklaştırır.
- Weiss 1998: Cam mikropipet ve mikromanipülatör.
 - 28 göz: %79 görme artışı

Injection of Tissue Plasminogen Activator into a Branch Retinal Vein in Eyes with Central Retinal Vein Occlusion

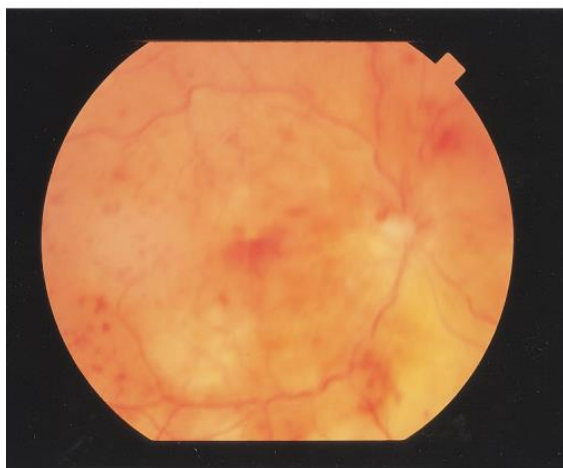
Jeffrey N. Weiss, MD, Leon A. Bynoe, MD

2001, ophthalmology

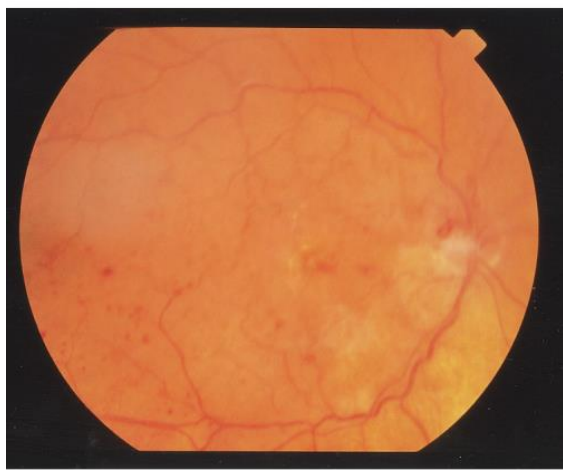
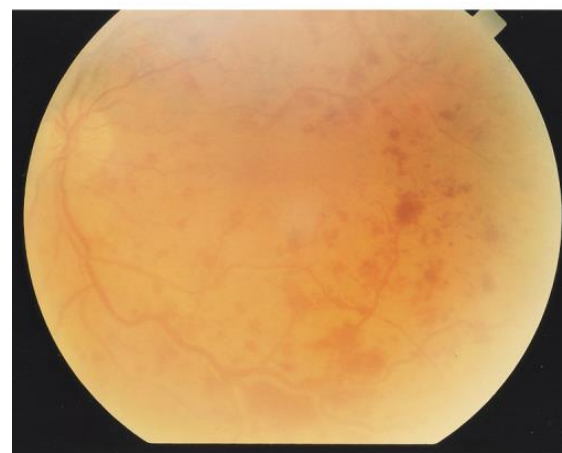




preop



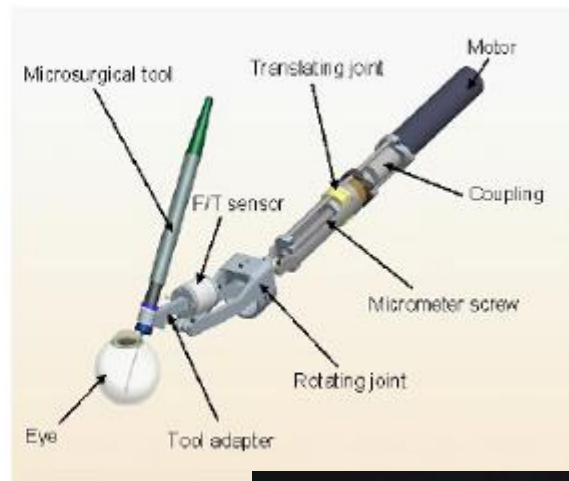
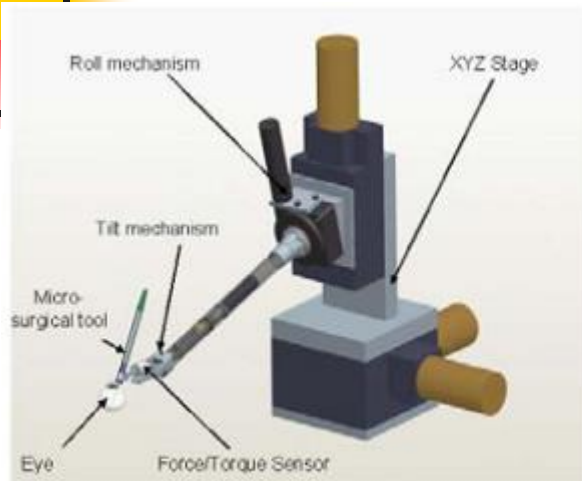
1. ay



6.ay

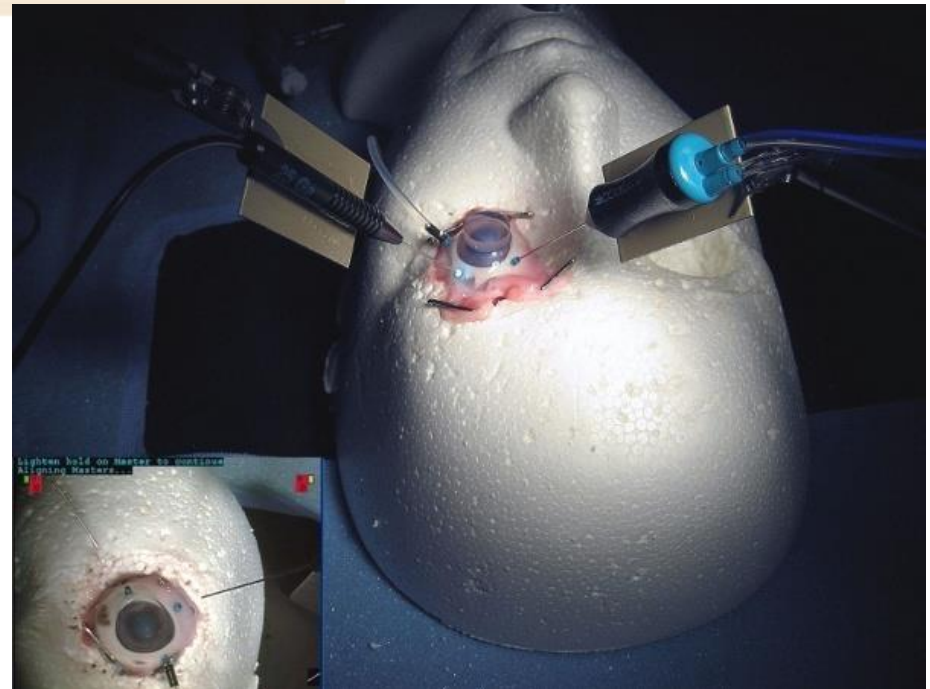


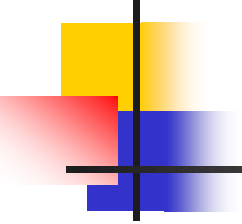
Robotik cerrahi

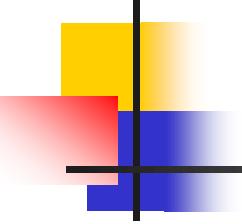


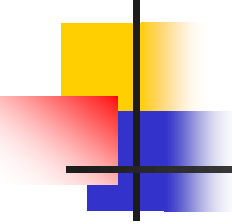
Los Angeles, Da Vinci Robot

Precision experiments on a comanipulated robotic system for use in retinal surgery
P. Caers P. Stalmans, et al



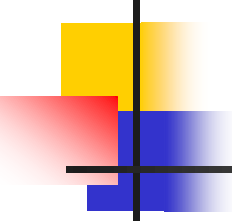
- 
- Yamamoto T, ve Tano Y. **Comparison of surgical treatments for central retinal vein occlusion; RON vs. cannulation of tissue plasminogen activator into the retinal vein.** Retina. 2009
 - 11 er göz
 - Fark yok
 - %18 (RON) ve %40 NVG

- 
-
- Experimental **endoscopic** endovascular cannulation: a novel approach to thrombolysis in retinal vessel occlusion. Invest Ophthalmol Vis Sci. 2012. Hattenbach LO, et al



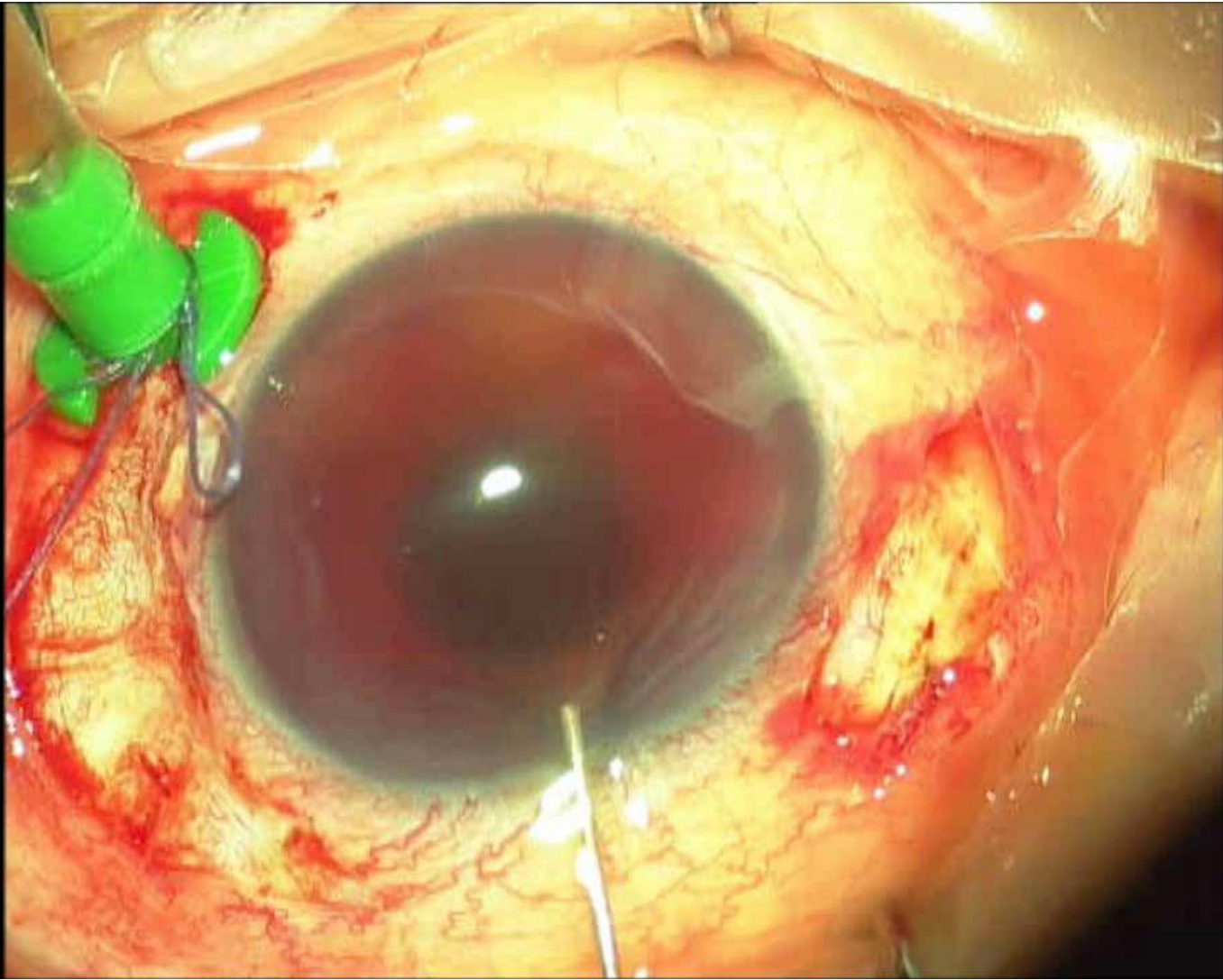
Retina ven kanülasyonu

- En gelecek vadeden trombozu ortadan kaldırmaya yönelik tedavi
- Dr. Levent Karabaş'ın kanül projesi
 - (70micron)



VEN TIKANIKLIĞI SEKELLERİNDE CERRAHİ

- Vitreus hemorajisi
- Maküler pucker / delik
- Traksiyonel RD



Ven tıkanıklığı maküler hol

Prof. Dr. Şengül Özdek
MAKULER_HOL



RETİNA VEN TIKANIKLIĞI

