

# MUKORMİKOZUN HİSTOPATOJİK TANISI

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Tıp Fakültesi  
Patoloji AD

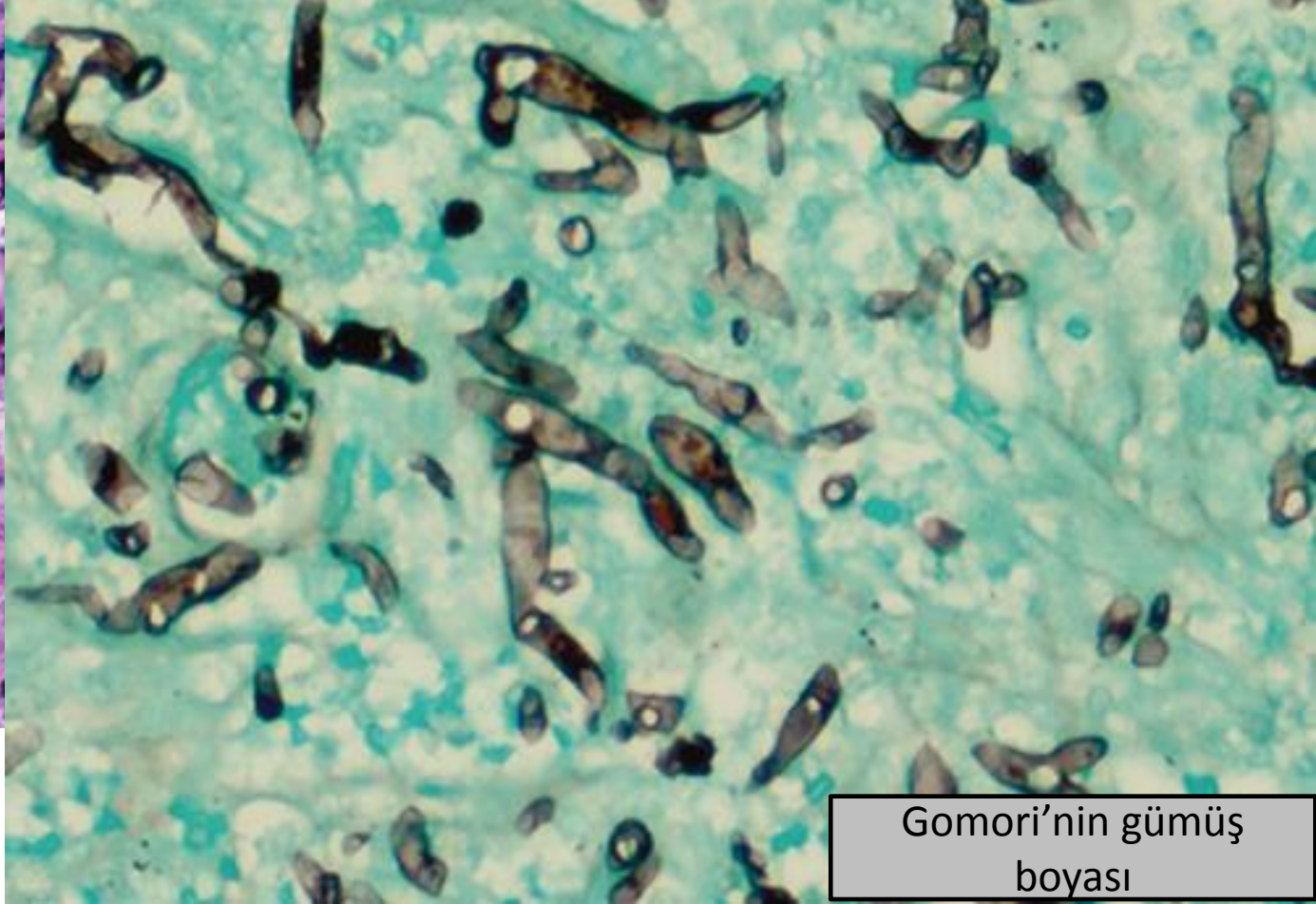
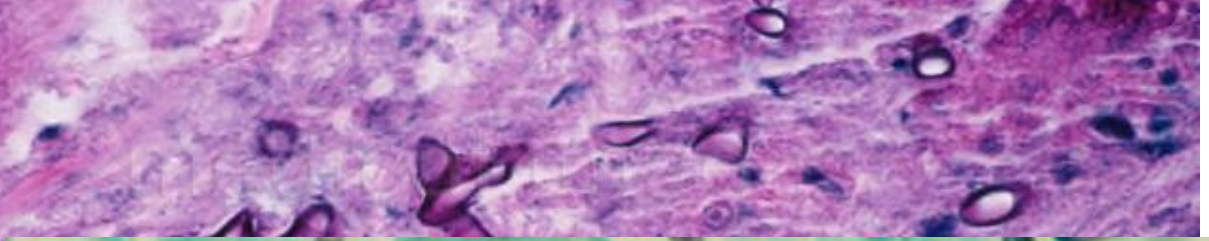
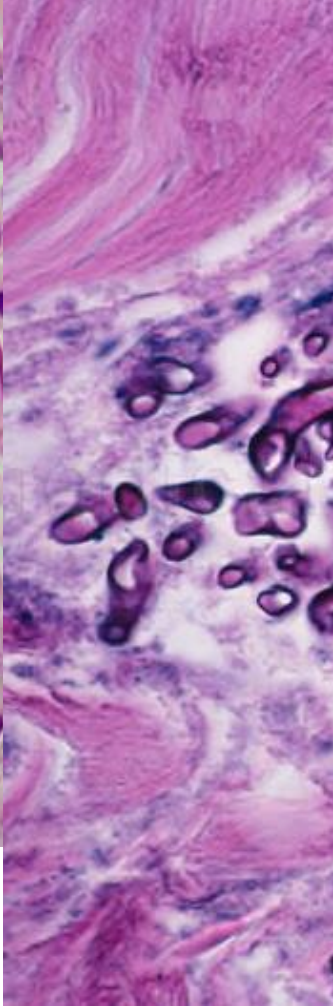
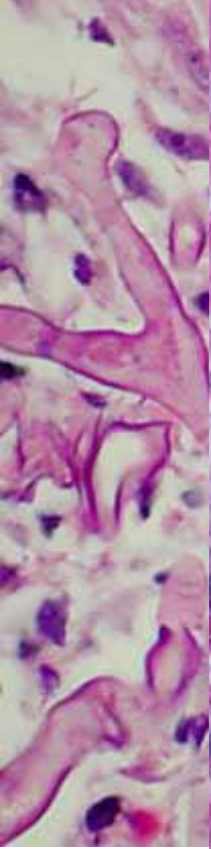
22.2.2018- İzmir

# PATOGENEZ

- Doğada yaygın bulunan, sağlıklı kişilerde enfeksiyon oluşturmeyen, immunsupresse kişilerde fırsatçı enfeksiyon yapan mantar
- Nötropeni, steroid kullanımı, diabet, cerrahi yara, yanık ve travmalar
- İn hale edilen sporlar nazal sinüsler ve akciğerde; perkütan temas ile deri-yumuşak dokuda; ağızdan alınarak GIS'de
- İlk defans makrofajların sporları fagosit etmesi ve non-oksidatif yolla öldürmesi; sonra nötrofiller tarafından hif duvarının hasarı ve hiflerin öldürülmesi
- Mantarın tipine bağlı olarak fagositoza ve hif hasarına doğal dirençte çeşitlilik; enfeksiyonun şiddetinde de değişkenlik
- Serbest demir de mükor büyümesi için promoter görevi yapar (diabetik ketoasidoz, demir şelasyonu tedavileri)

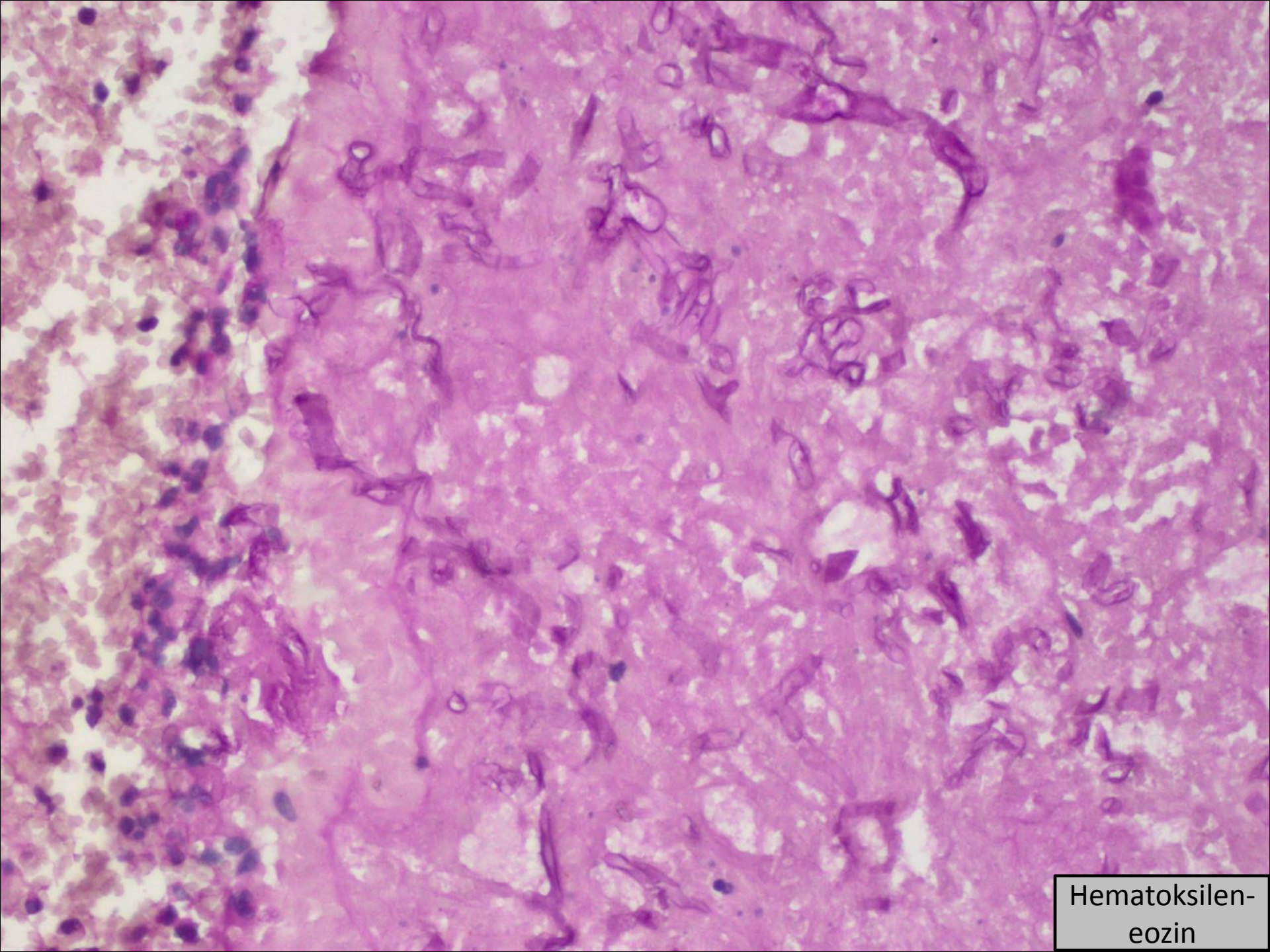
# MORFOLOJİ

- 6-50 mikron genişlikte septasız hifler; sıklıkla dik açılı dallanma
- Primer olarak nazal sinüsler, akciğer, deri ve GİS
- Özellikle diabetiklerde nazal sinüsten orbita, periorbital doku ve kranial boşluğa ilerler. Rinoserebral mukormikozis, meningoansefalit, beyin infarktı, tromboz gelişir
- Deri ve yumuşak doku tutulumu, yanık ve travmada, IV ilaç bağımlılarında, kontamine kateter uygulamalarında, örümcek ısırığından sonra olabilir
- Mukor, lokal doku nekrozu yapar; arter duvarlarını invaze eder; vaskülit, tromboz, hemoraji ve infarkta yol açar



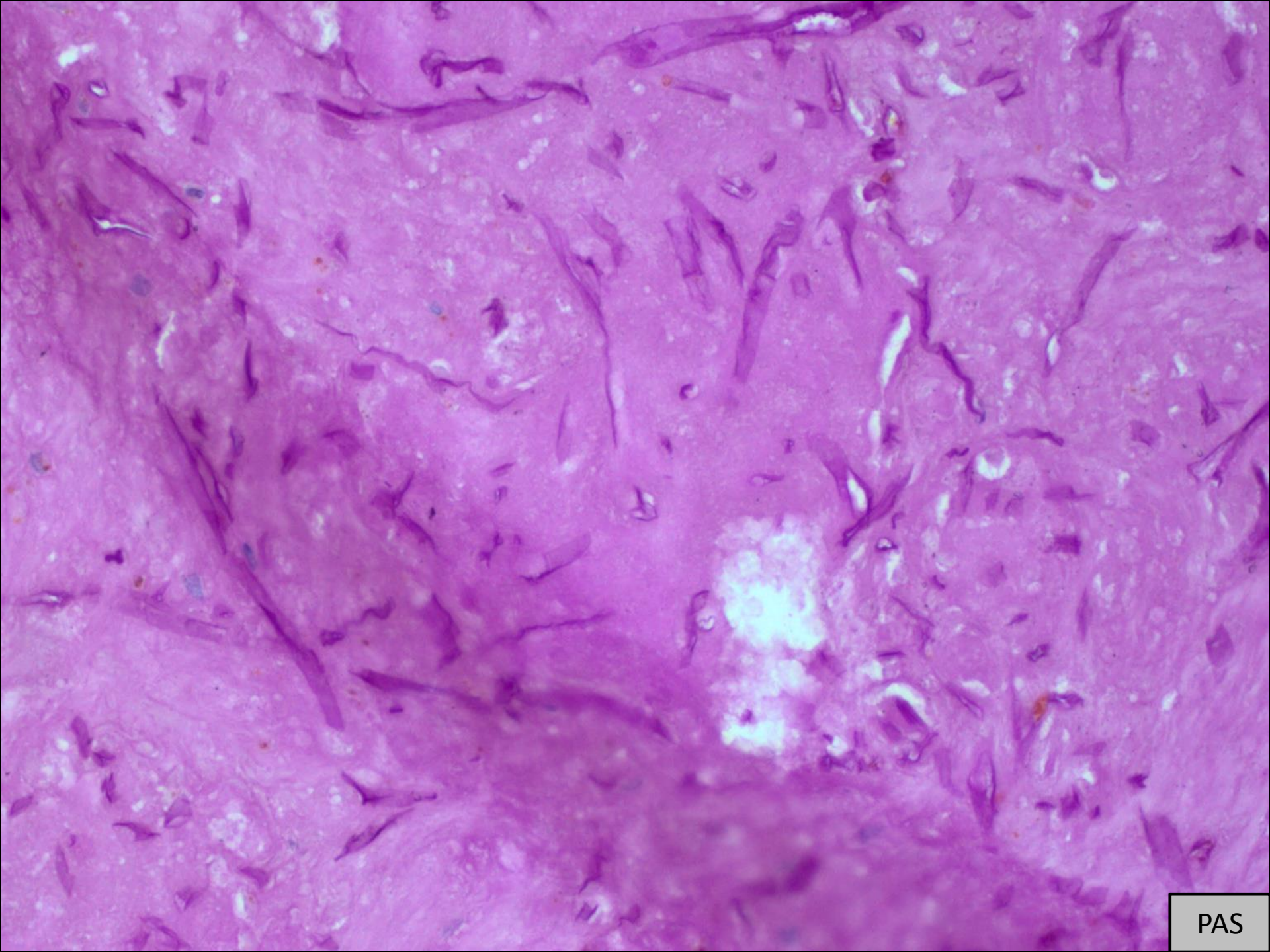
Gomori'nin gümüş  
boyası



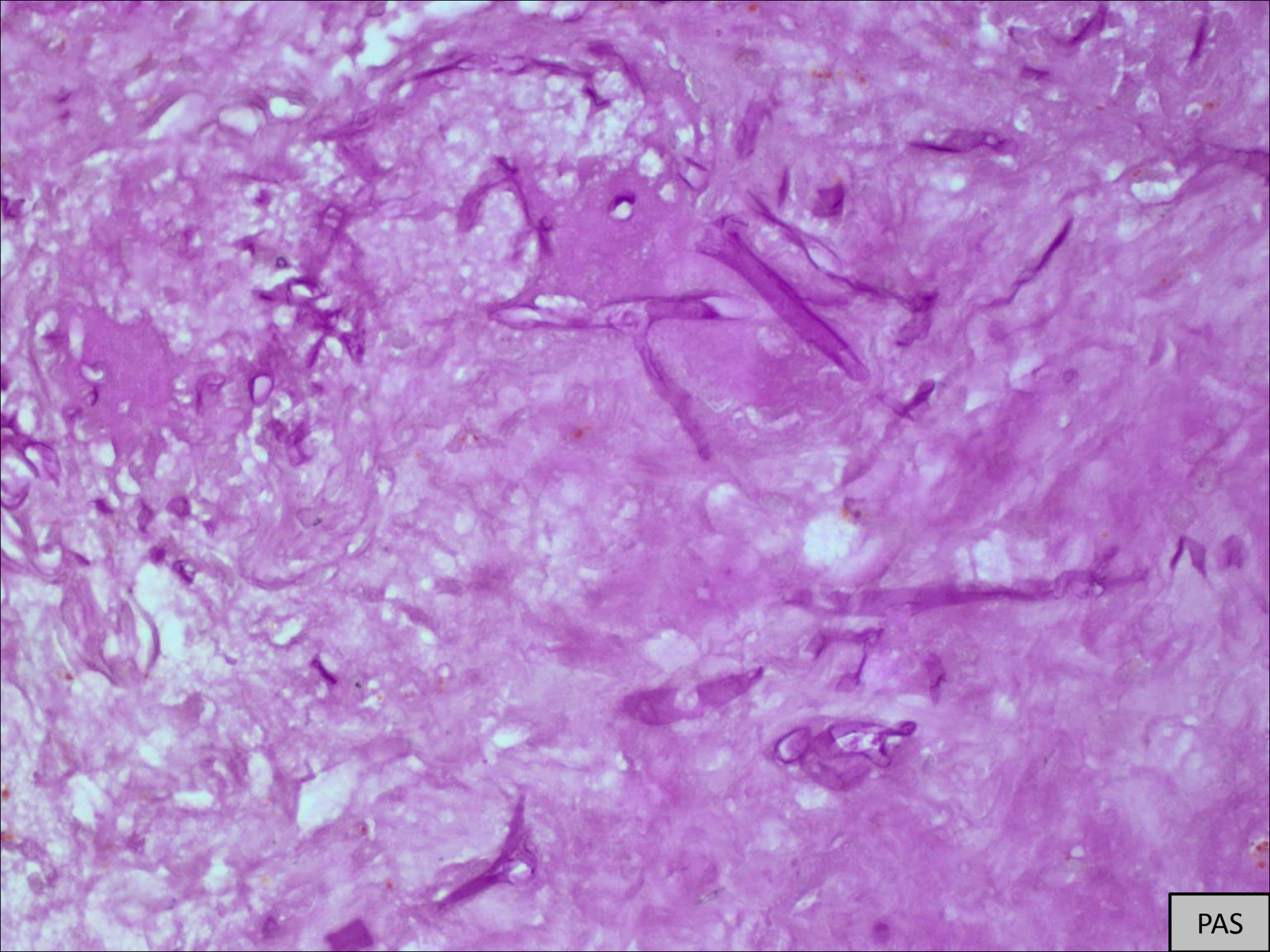


Hematoksilen-  
eozin

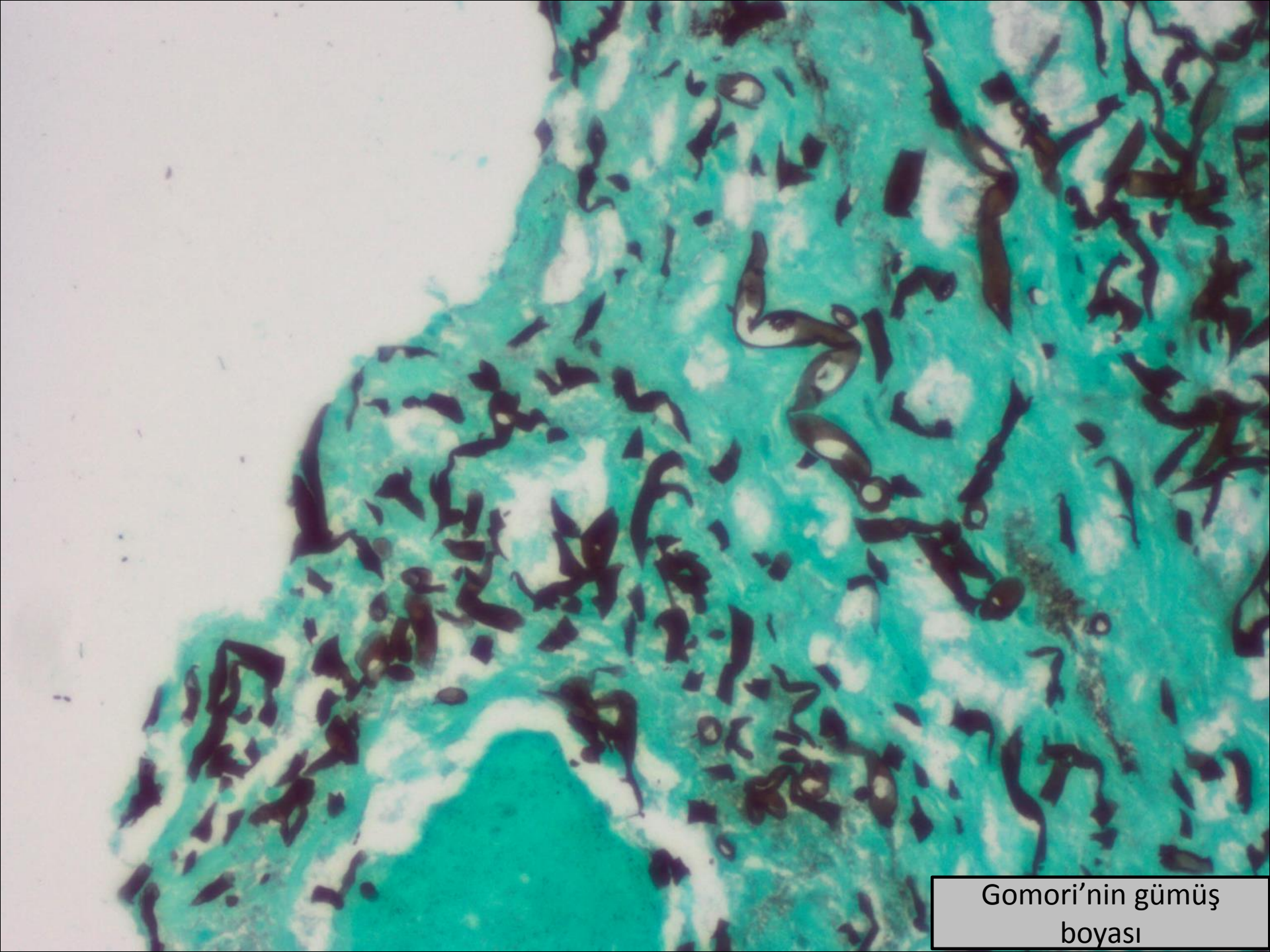






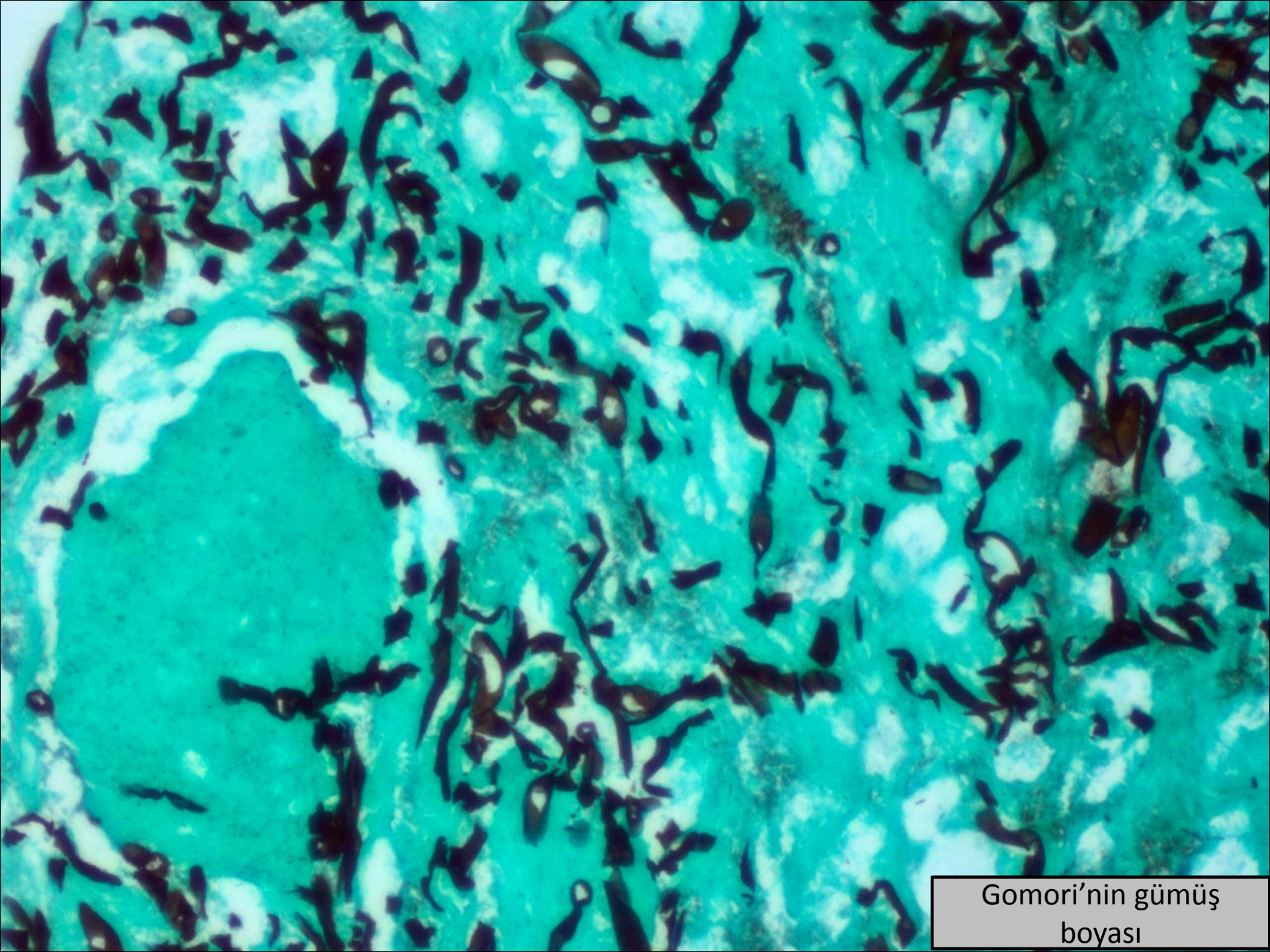






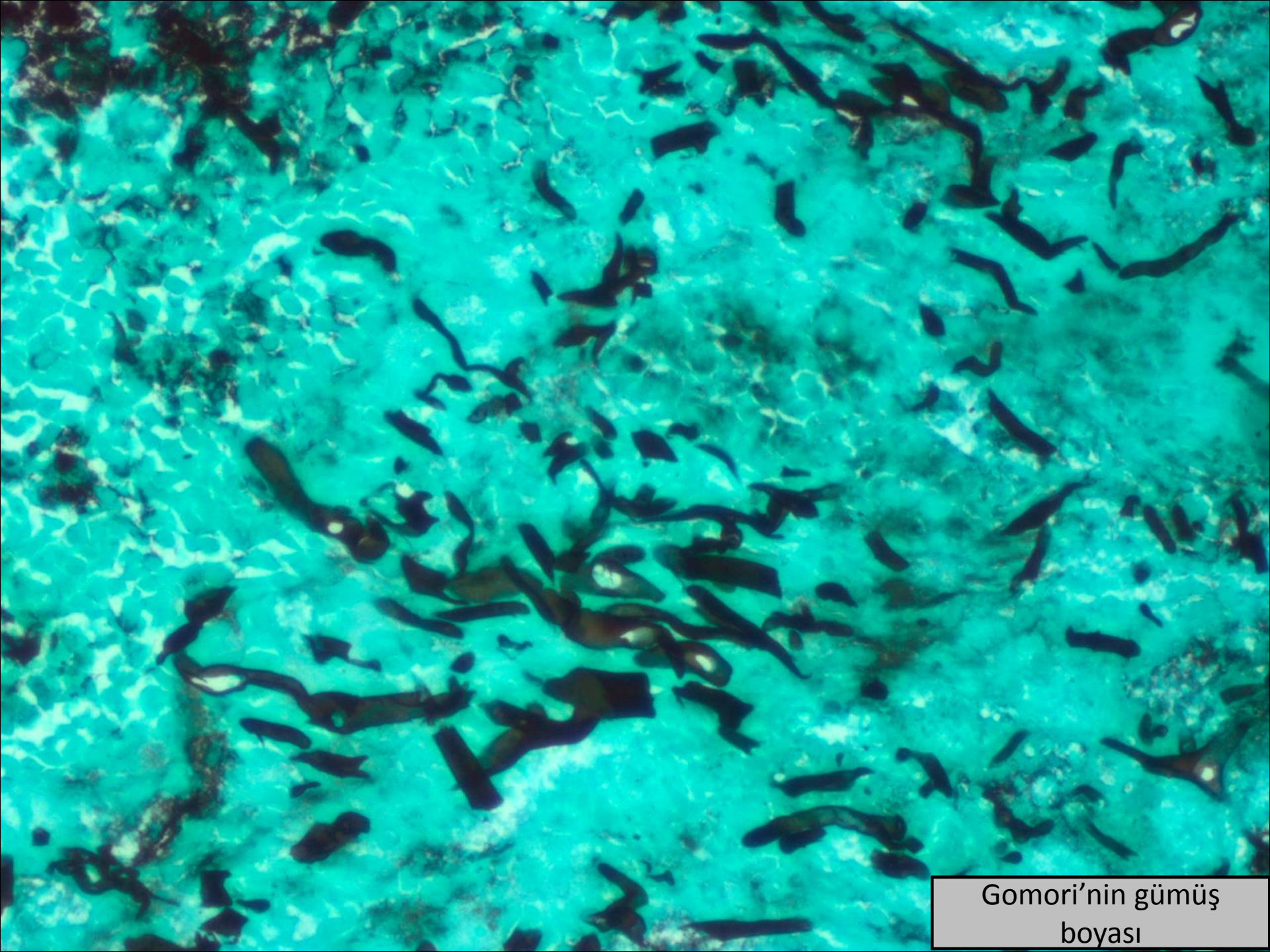
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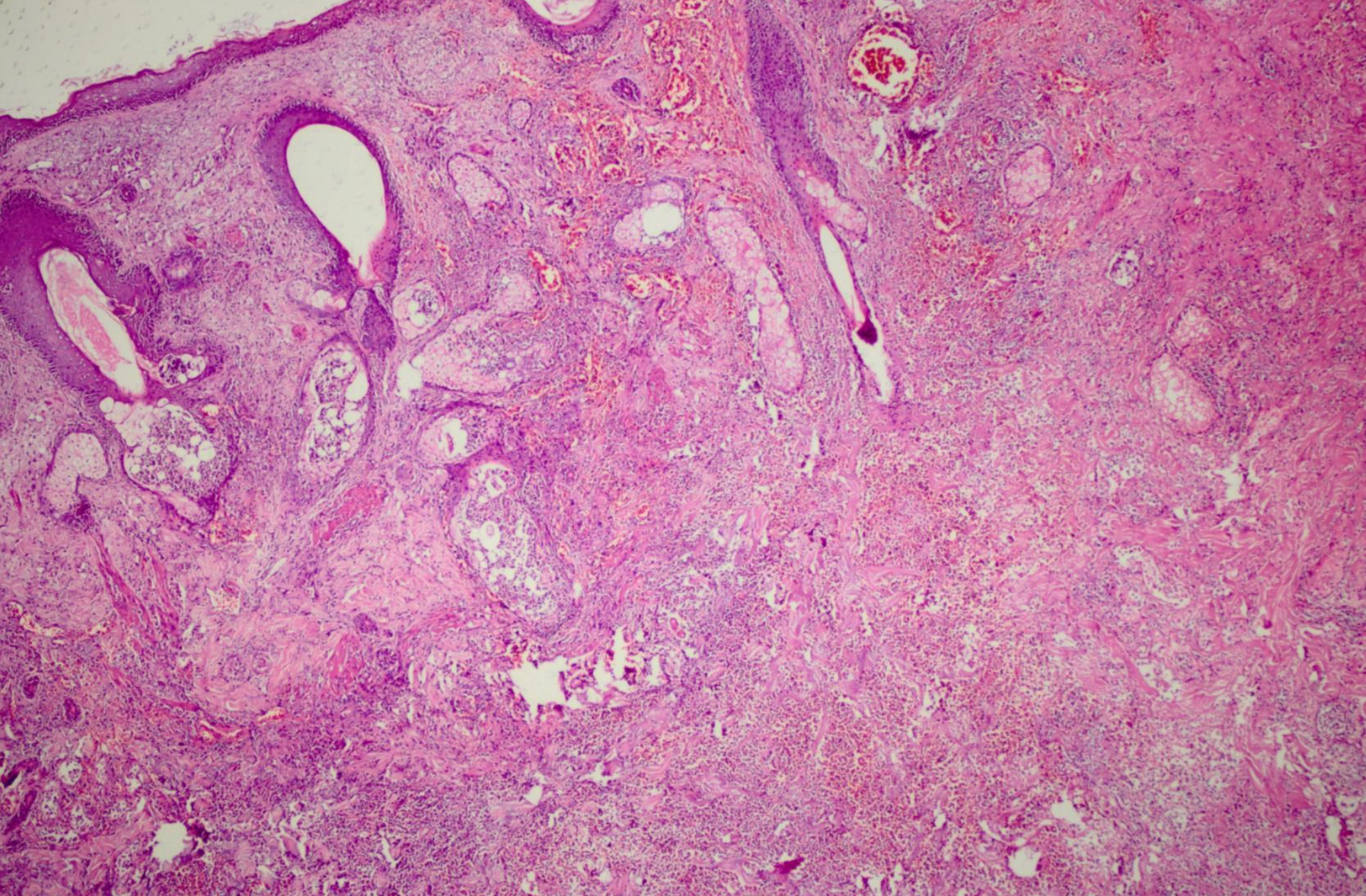
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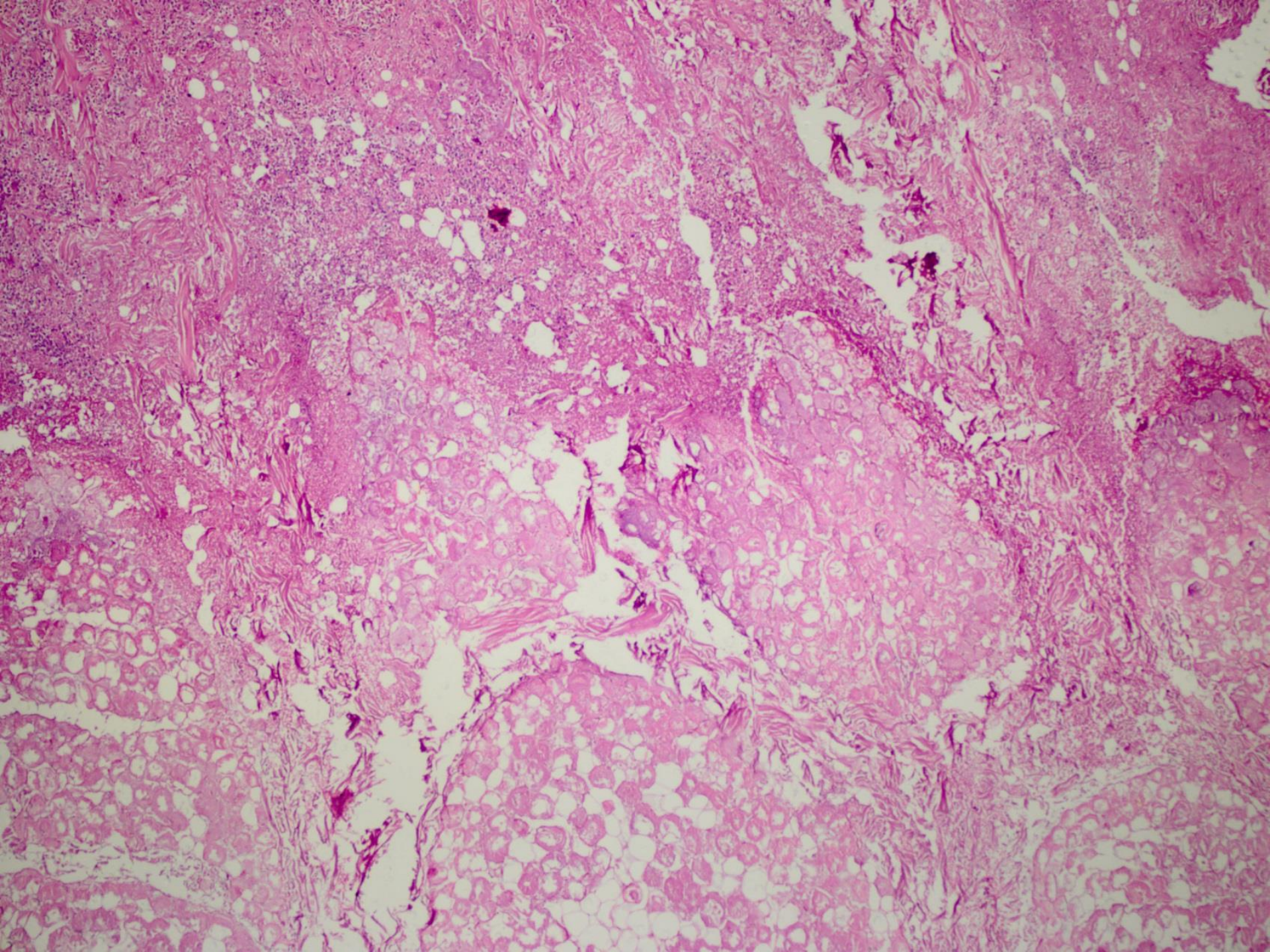
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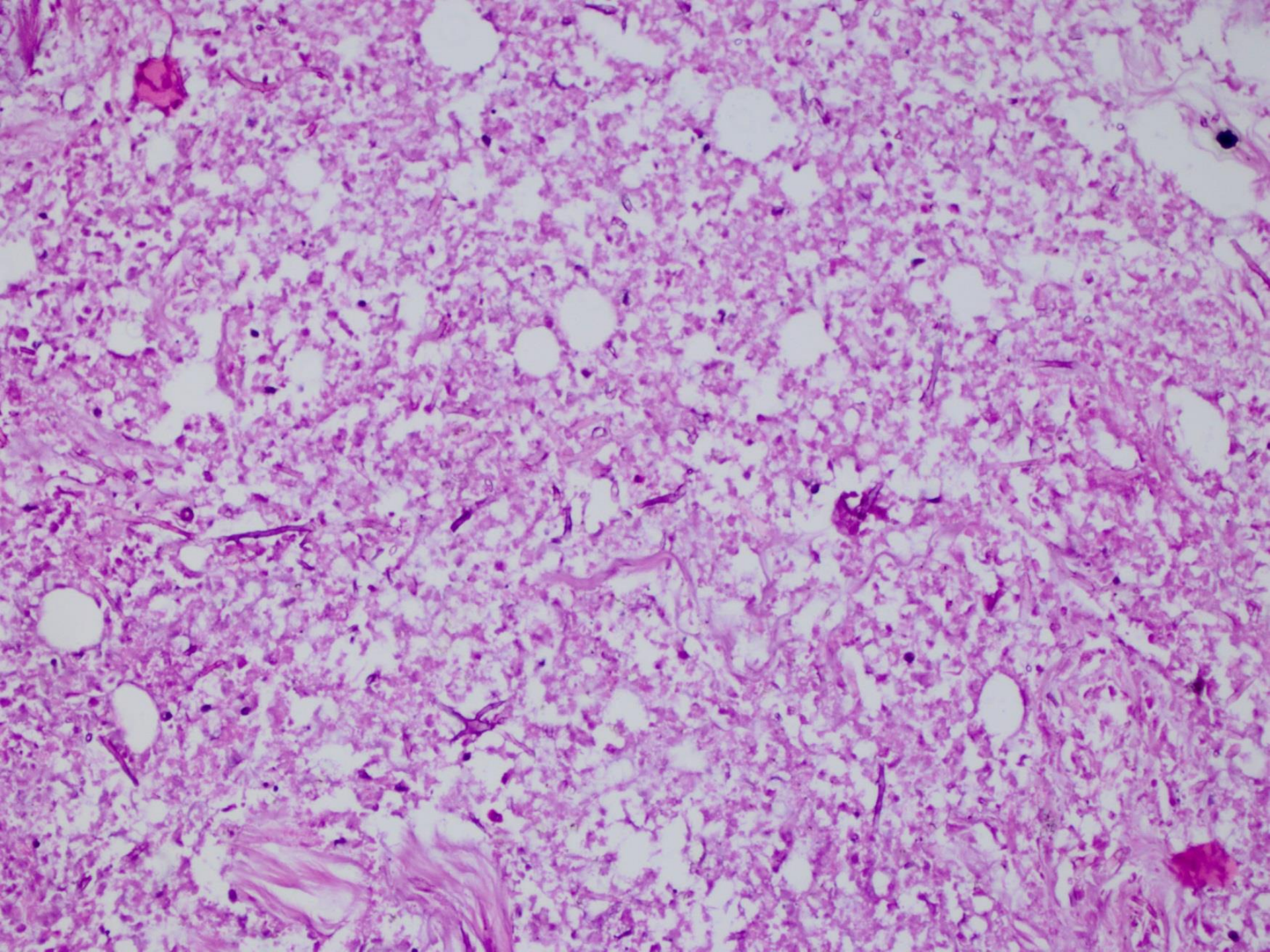


10339/2016 Üst dudaktan bilateral malar bölgeye ilerleyen  
nekrotik doku. Debridman.

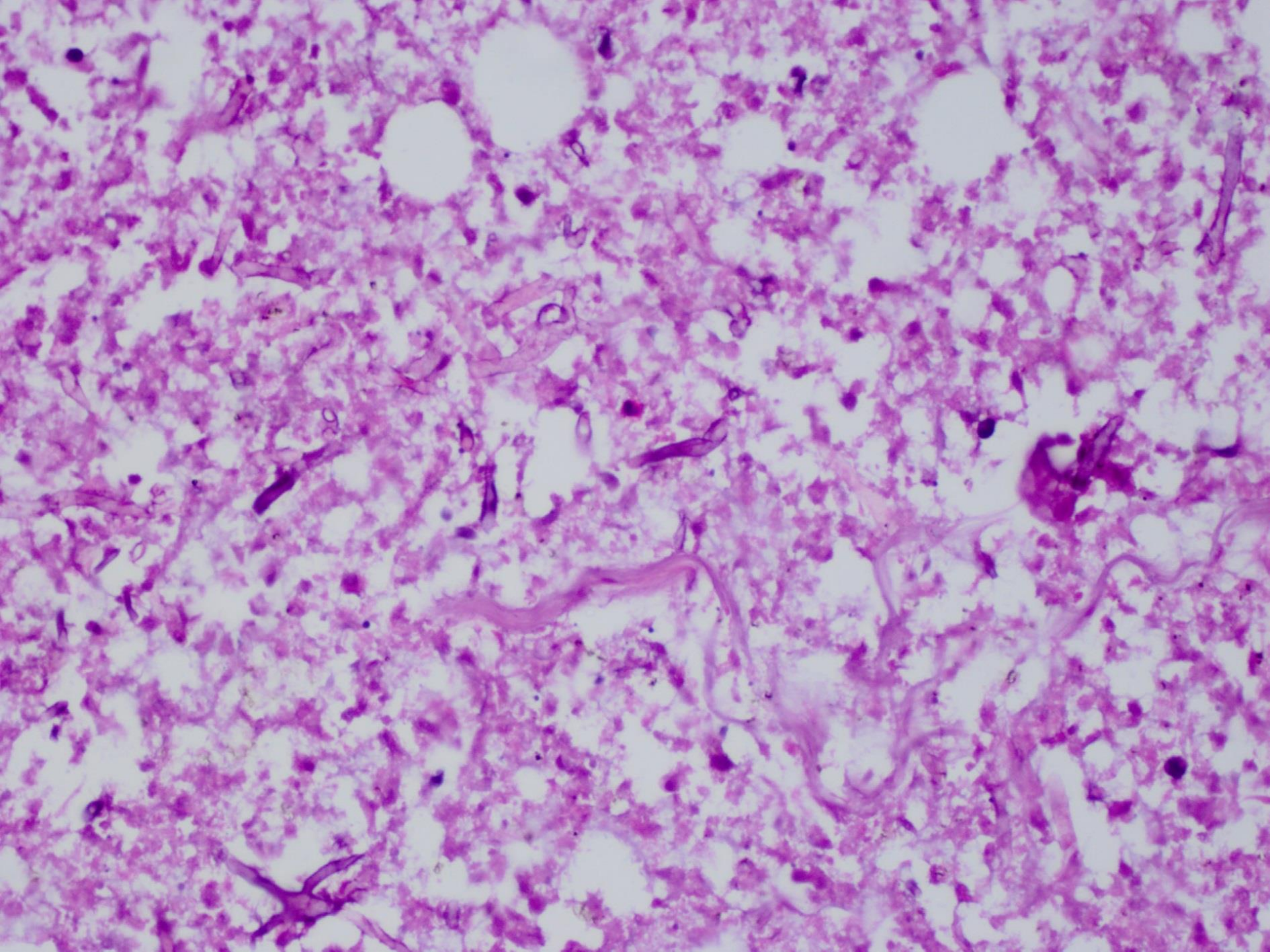




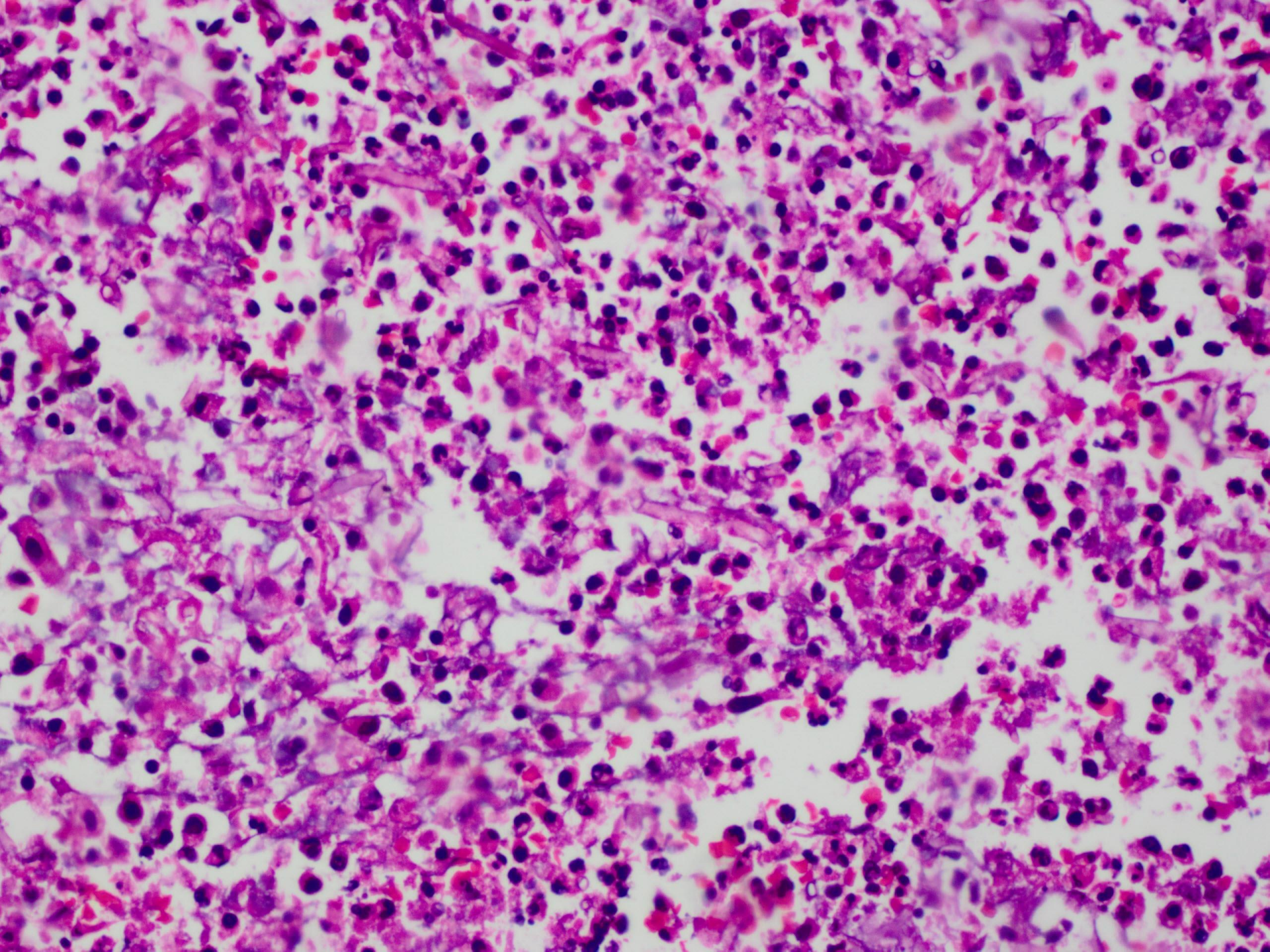




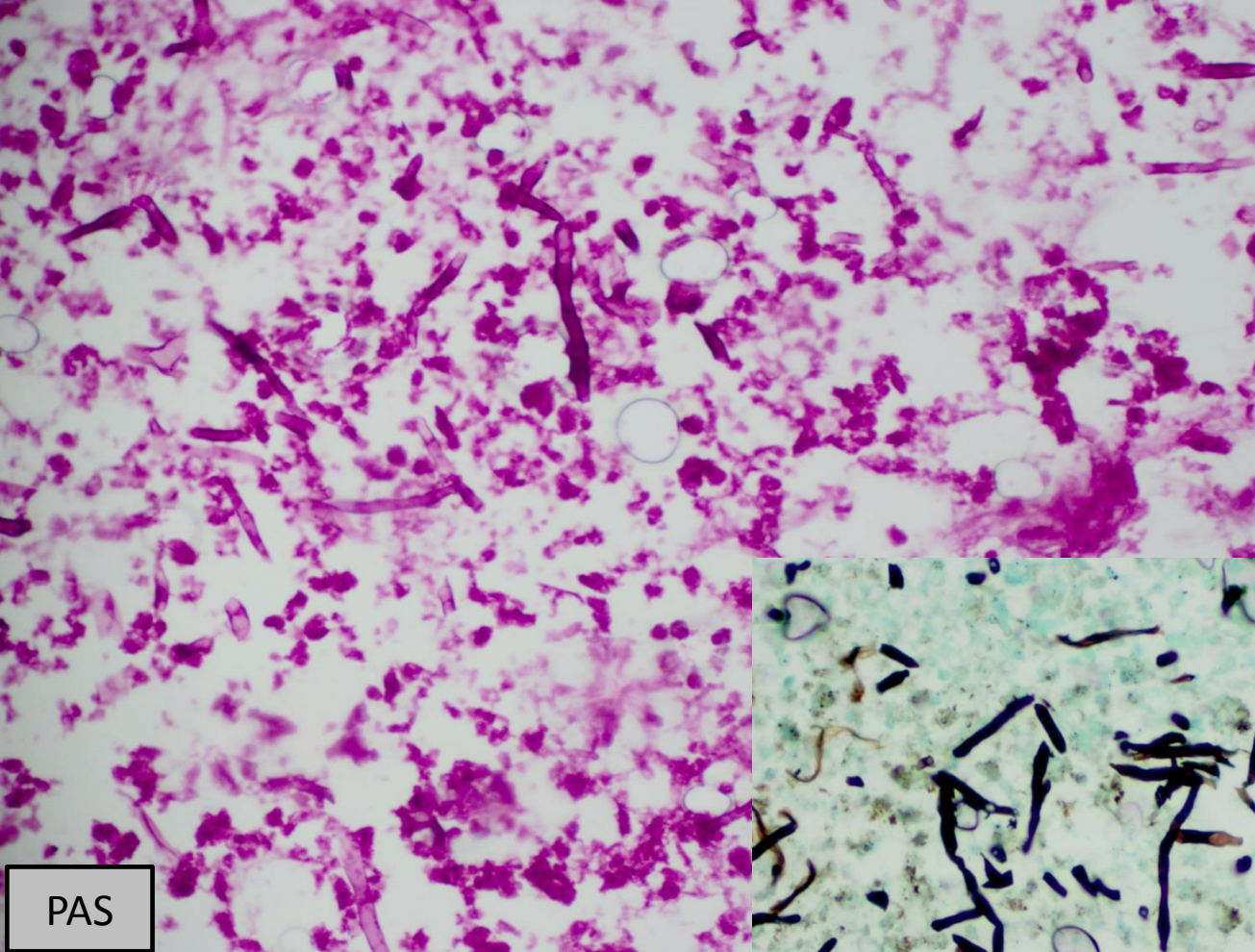




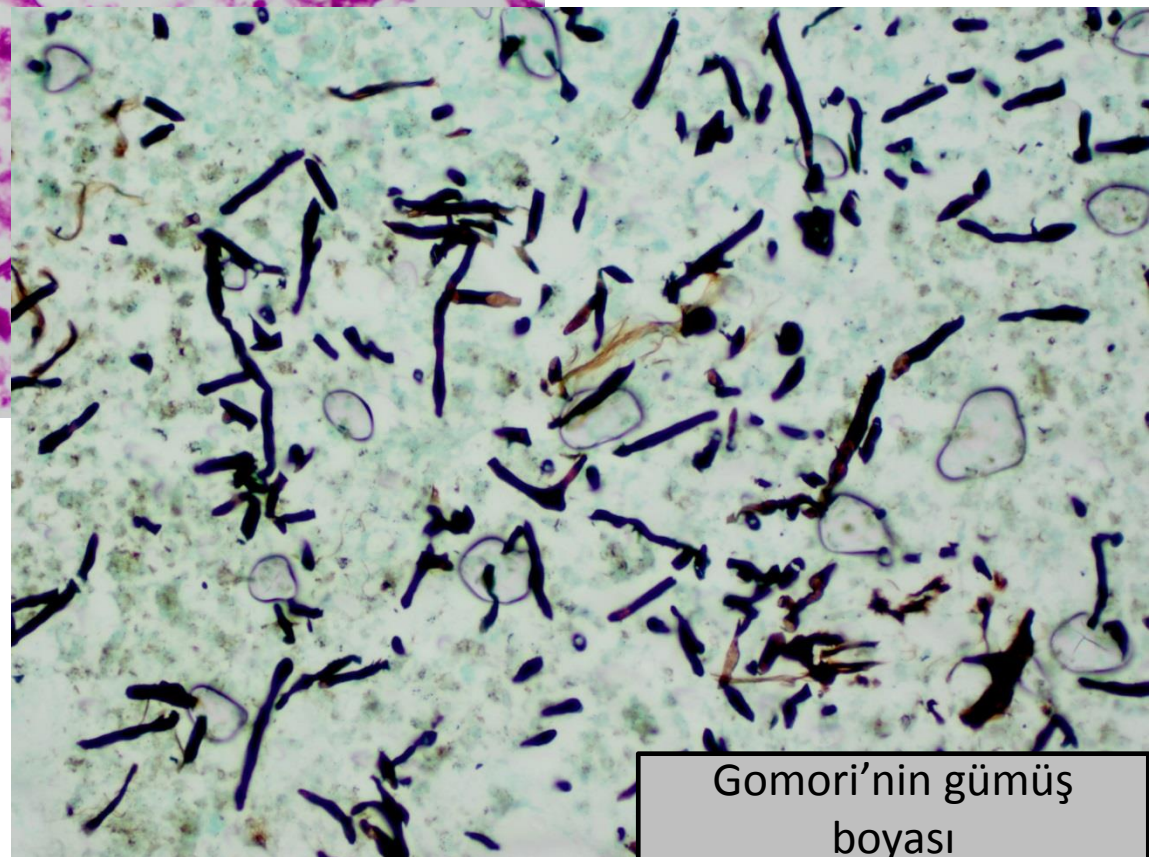








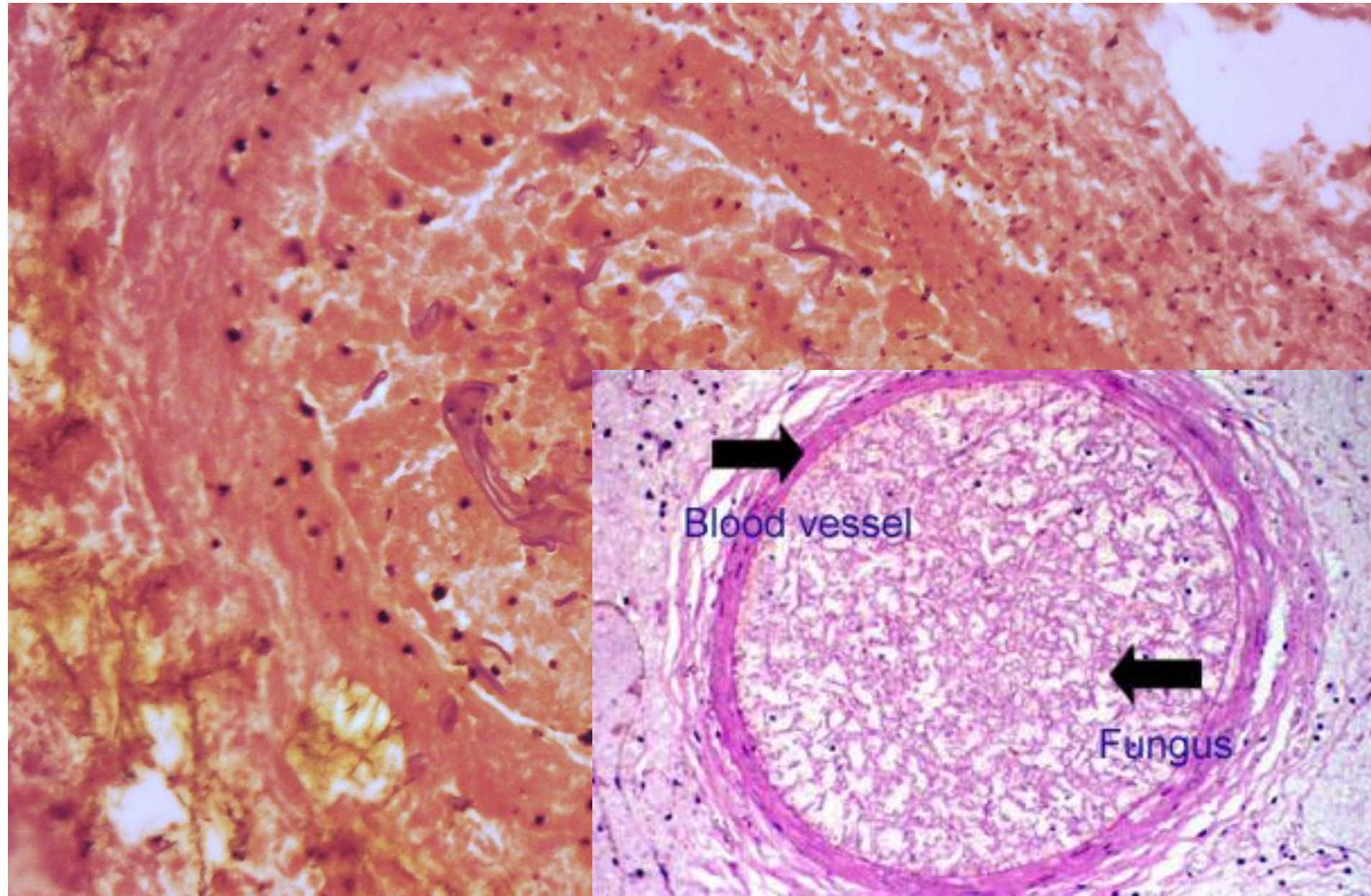
PAS



Gomori'nin gümüş  
boyası

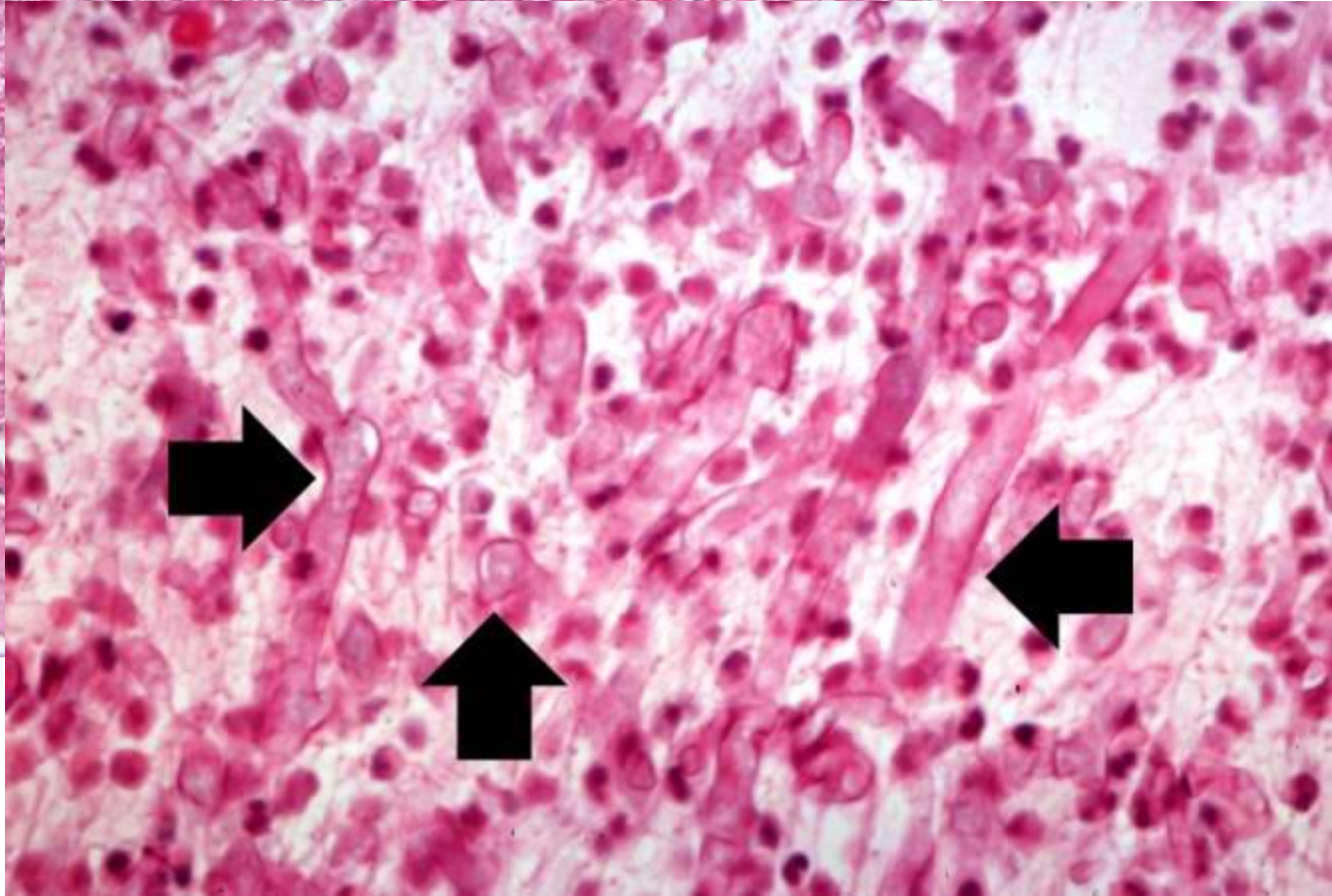
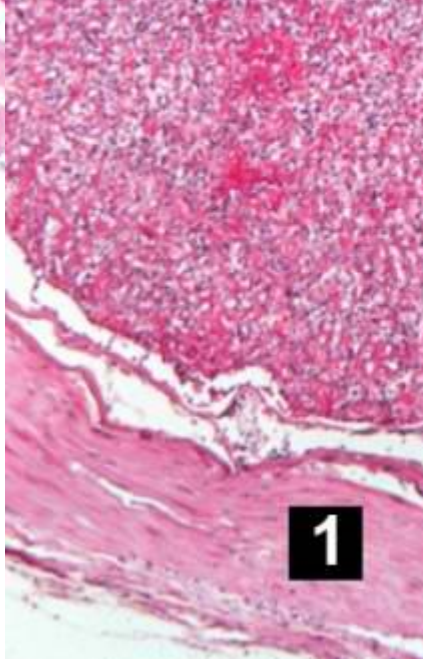
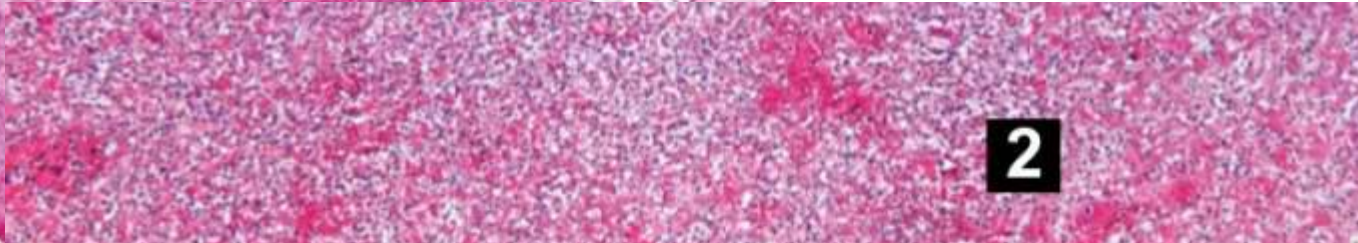
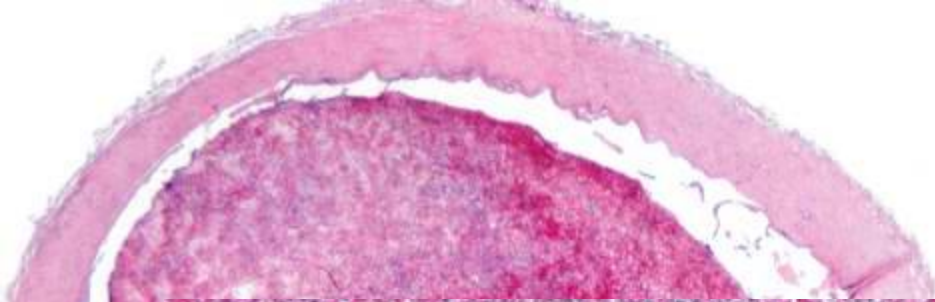


# Damar tutuluşu



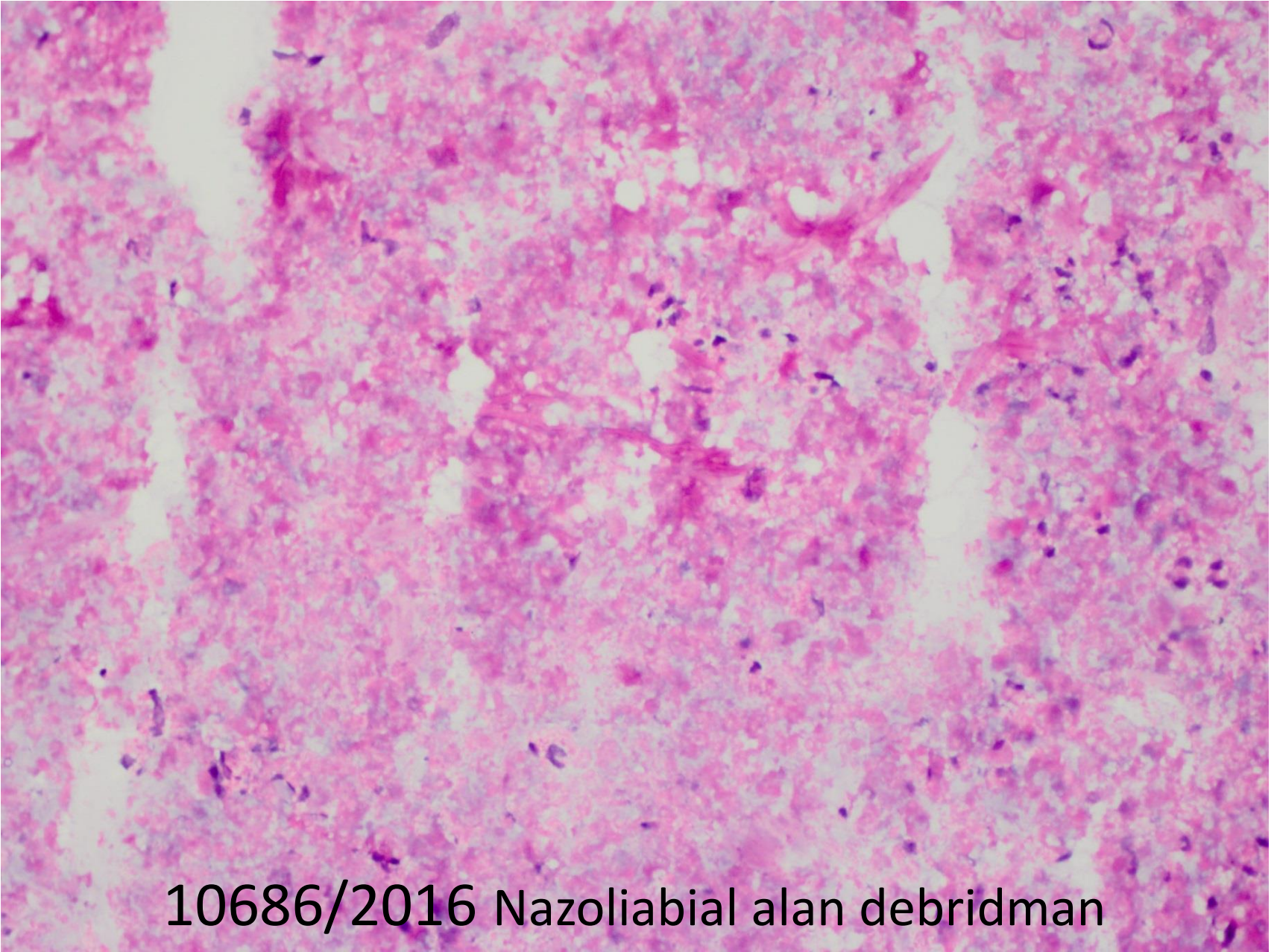


Karotid arterde  
trombus ve mukor



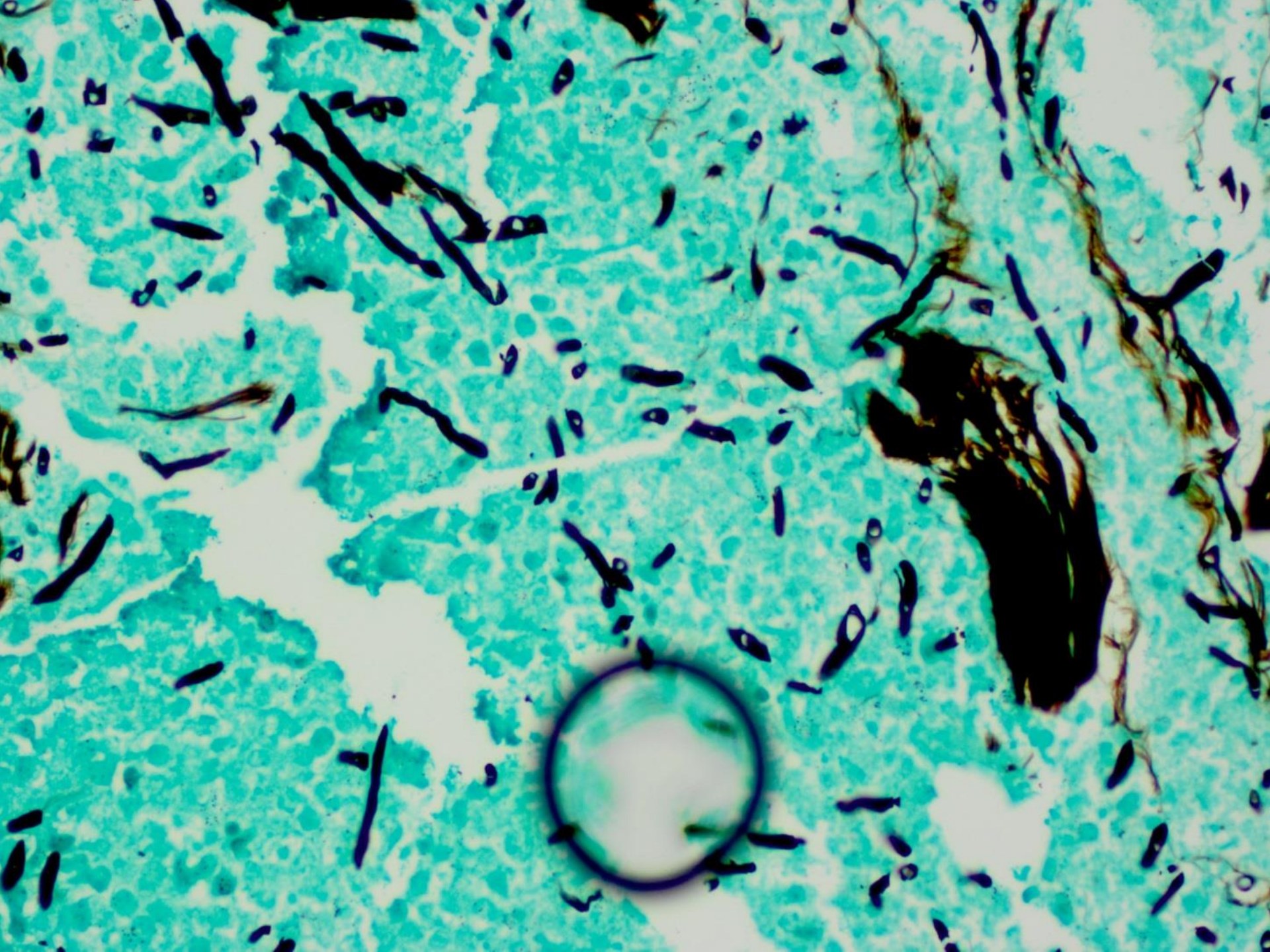


# MUKOR TANISINDA FROZEN KESİT



10686/2016 Nazoliabial alan debridman







# MUKOR TANISINDA FROZEN KESİT

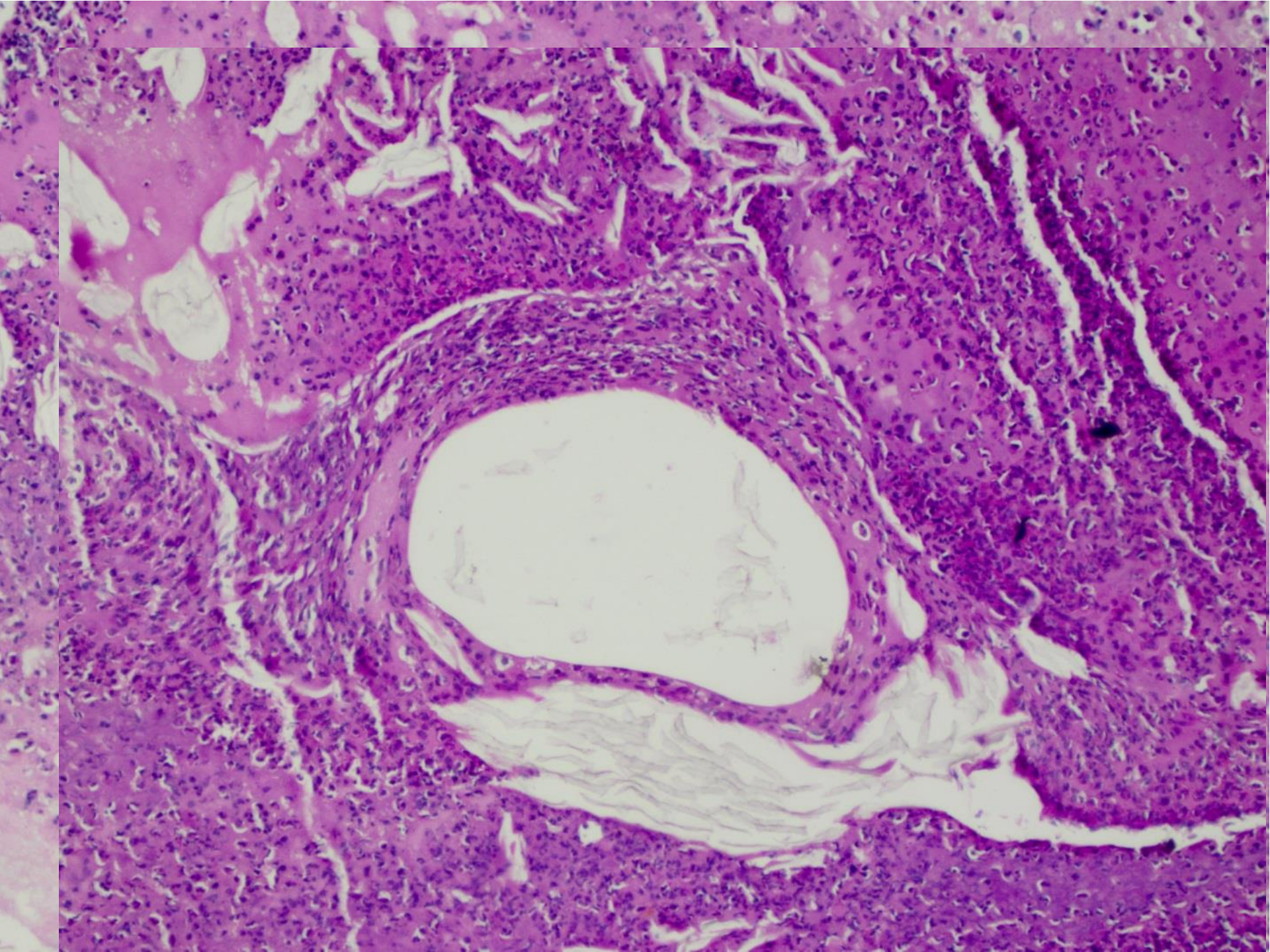
- Fungal enfeksiyon tanısının hızlı bir şekilde konmasında
- Debridman sırasında cerrahi sınırların belirlenmesi için
- Frozen kesitin sensitivitesi %70, duyarlılığı %100
- Pozitif öngörme değeri %100, negatif öngörme %70



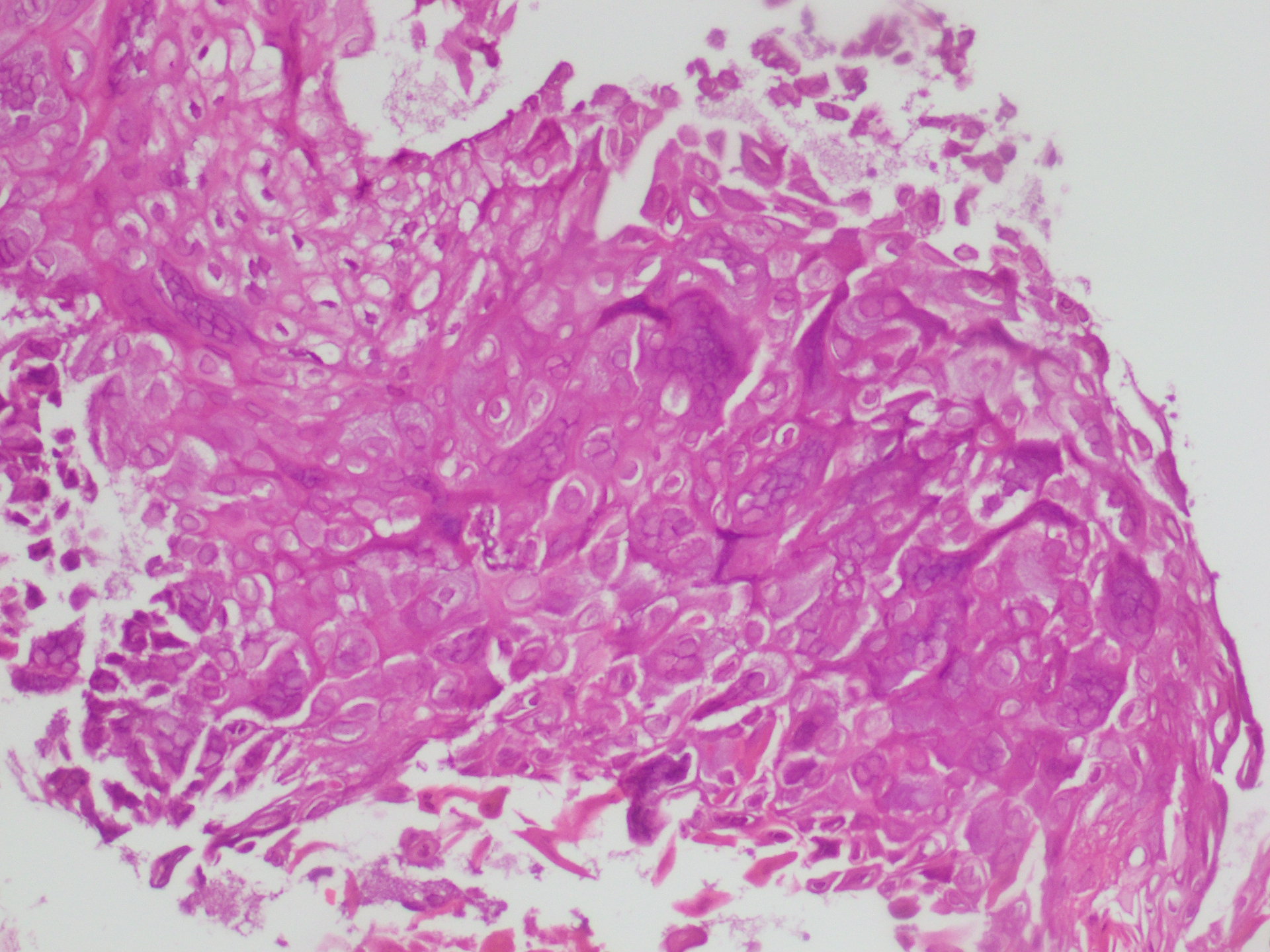
# HİSTOPATOLOJİK ZORLUKLAR

- Nekrotik doku, debri, elastik ve kollagen lifler
- Skuamöz epitel
- Keratin
- Diğer mantarlar

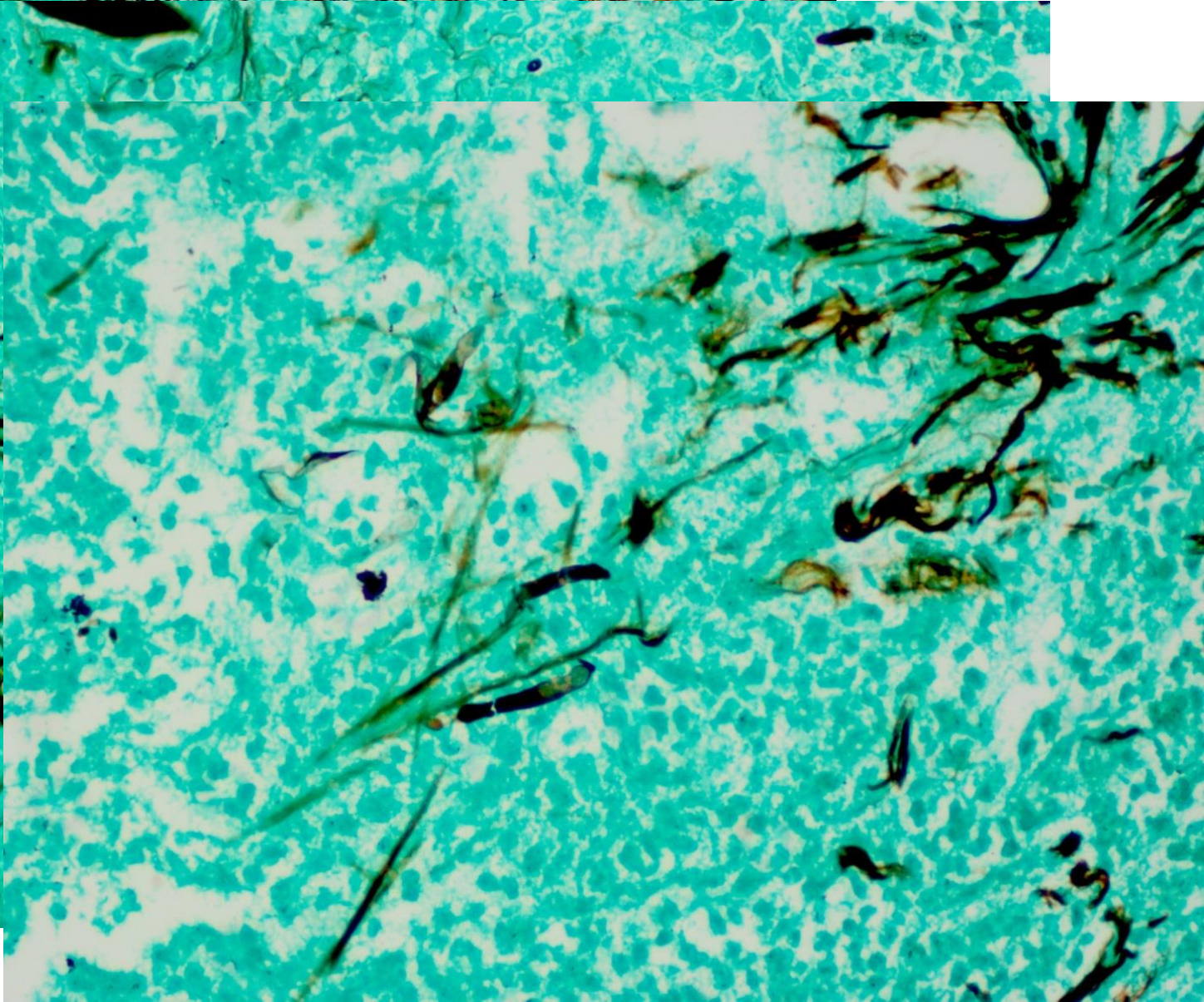
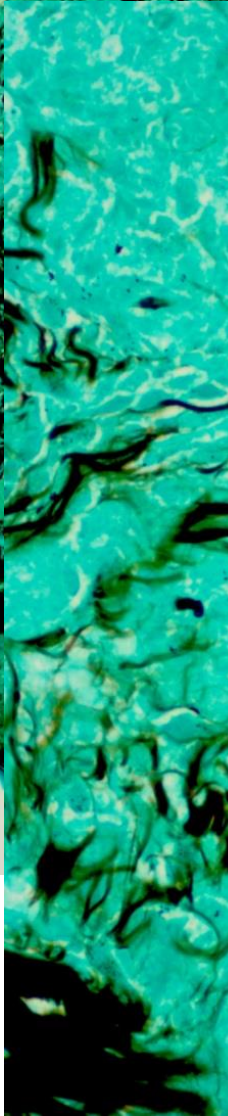
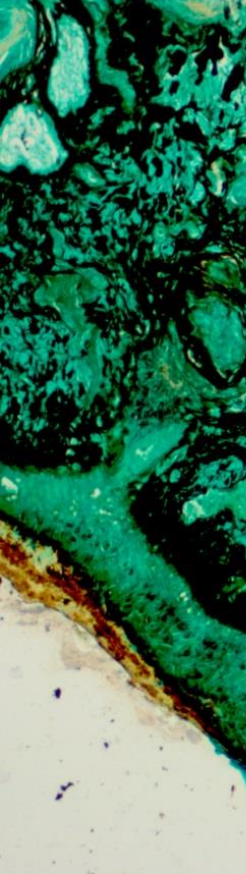
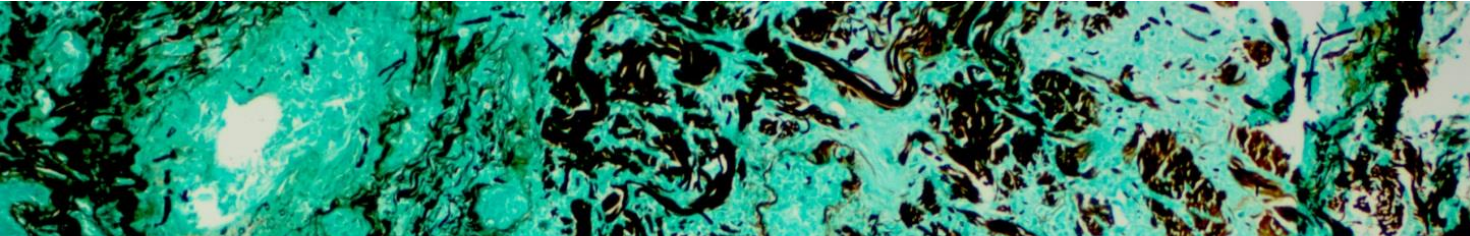




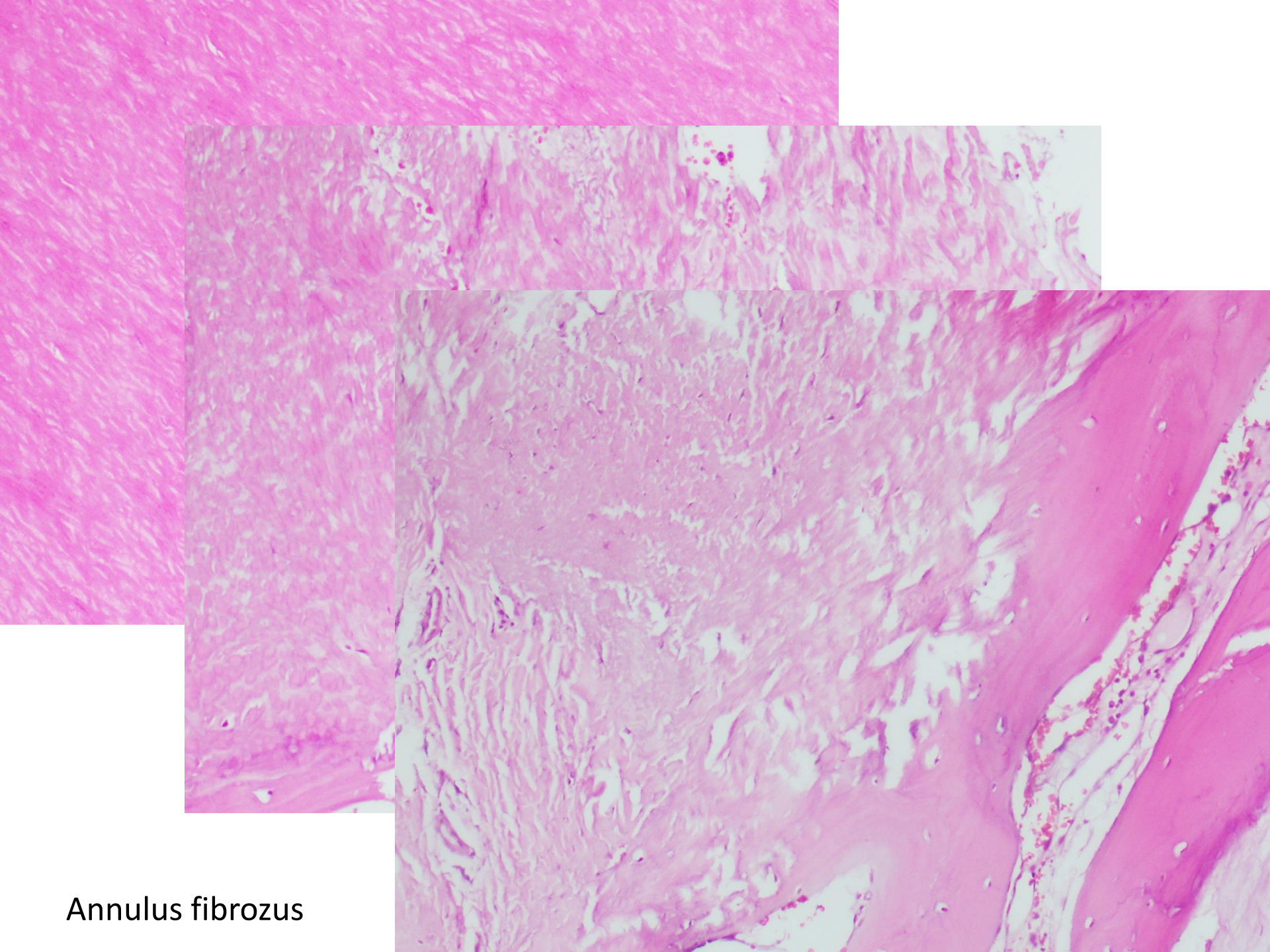






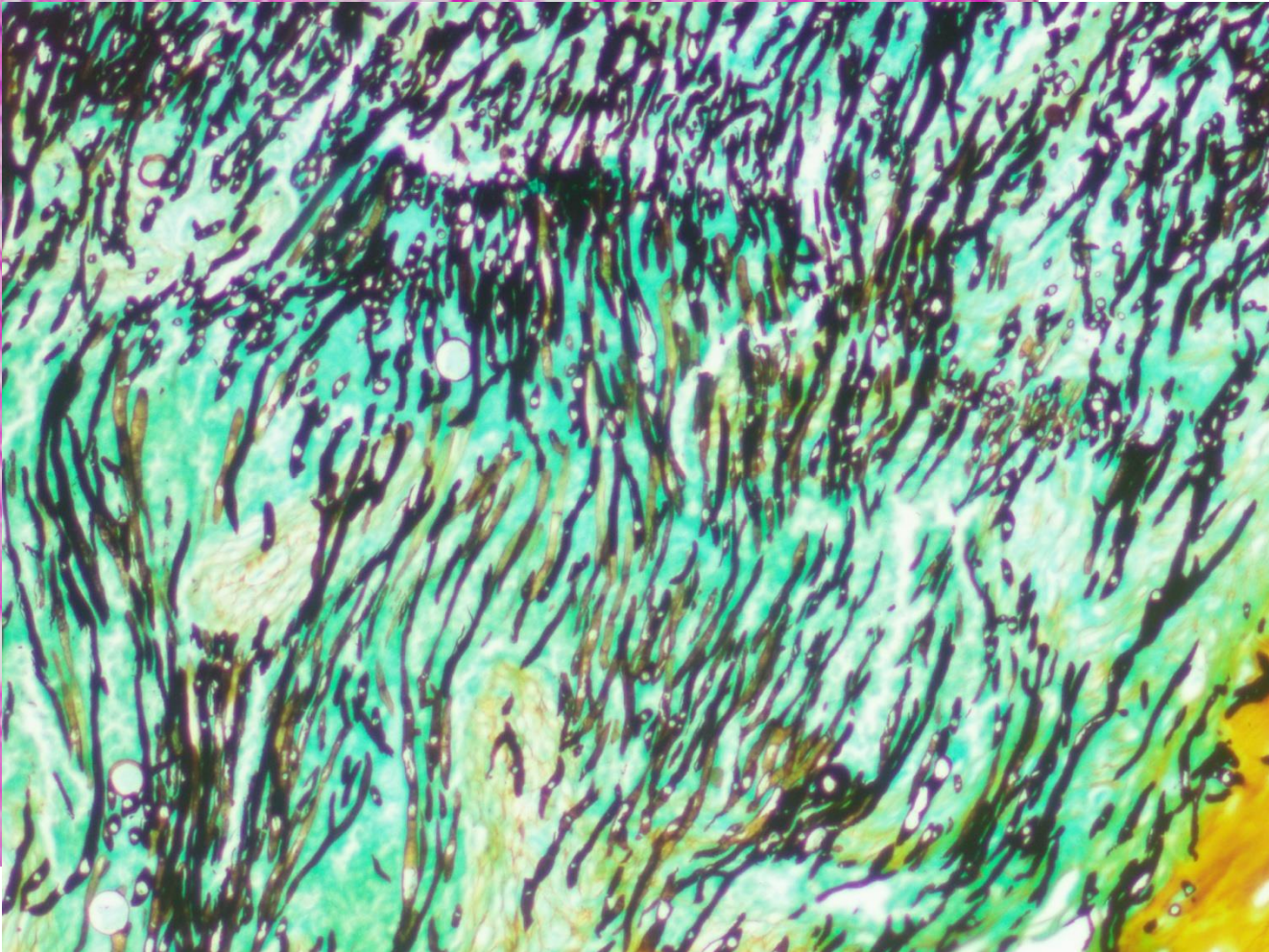
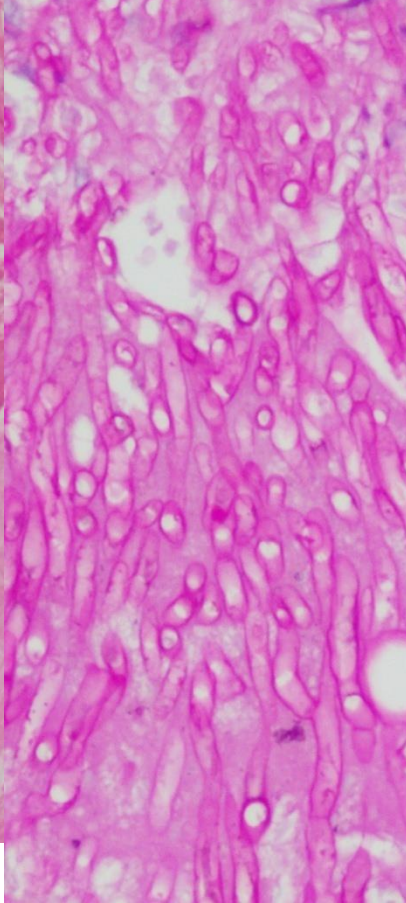
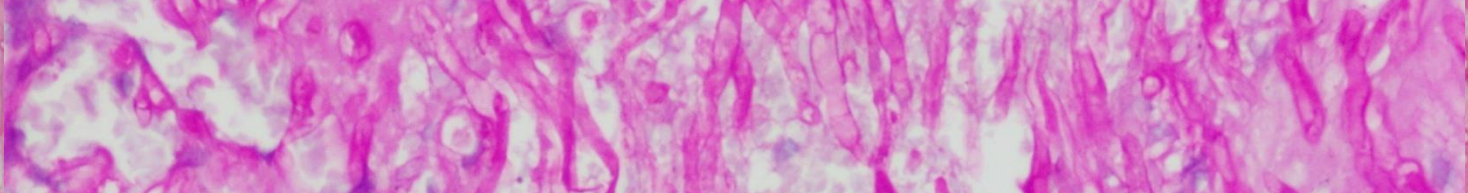
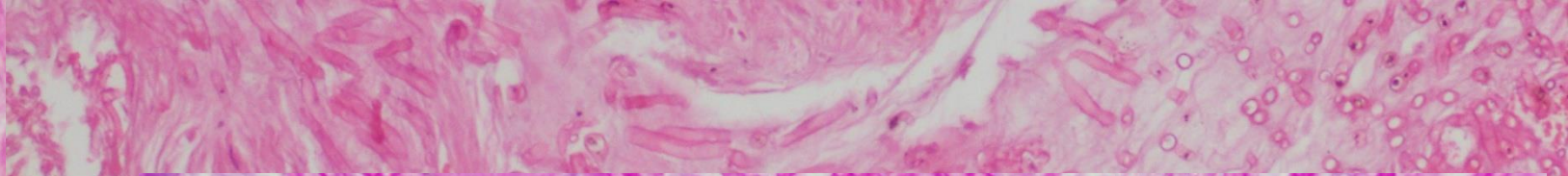




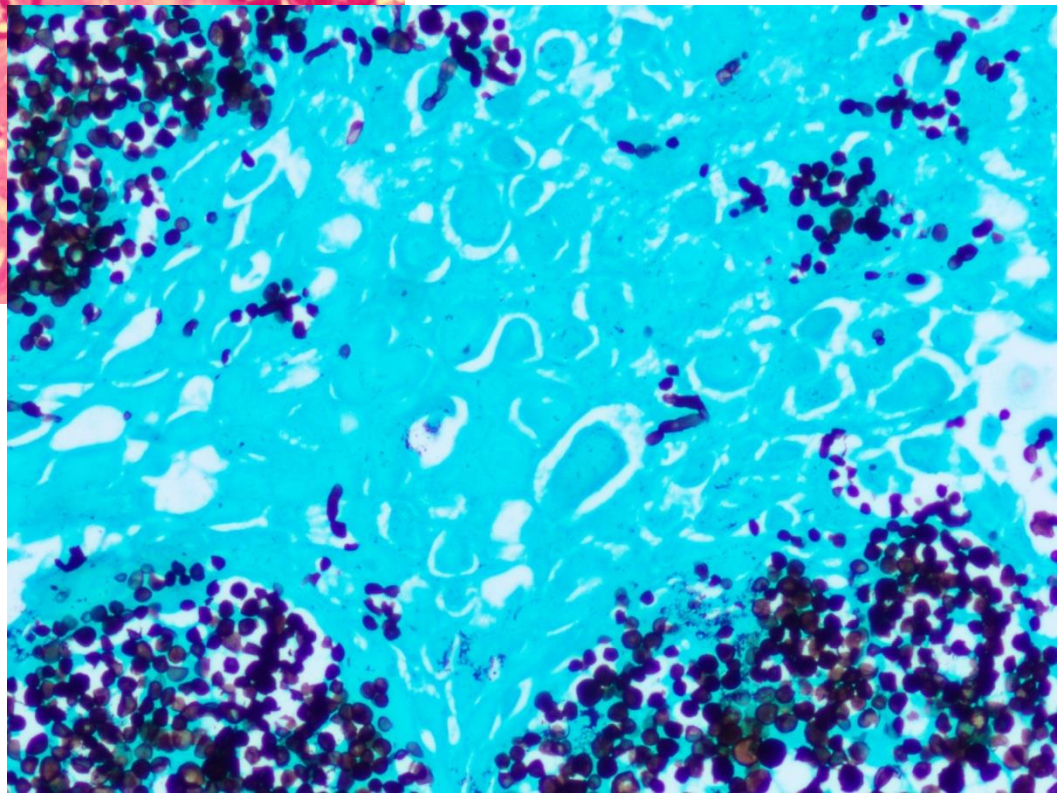
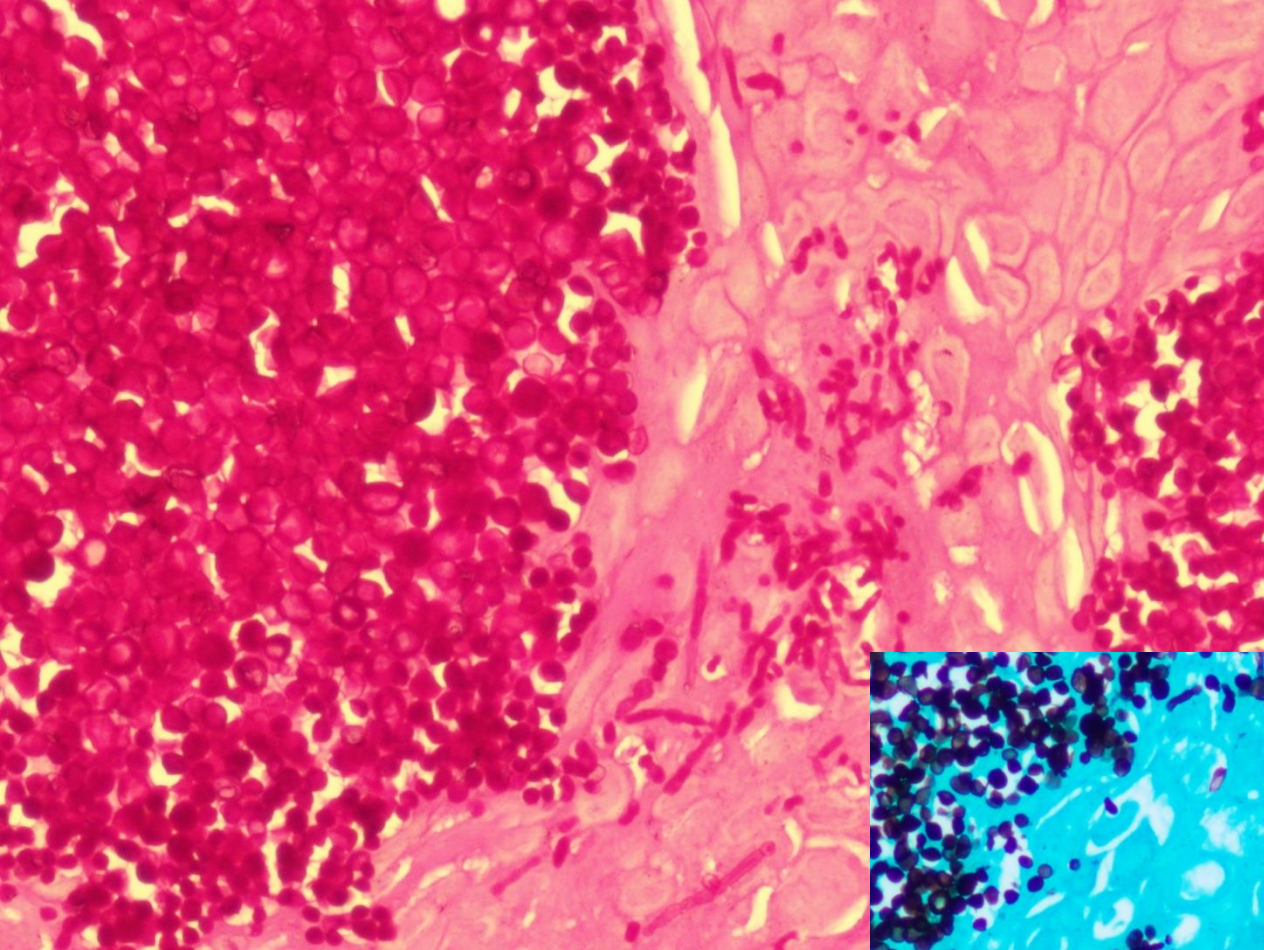


Annulus fibrosus

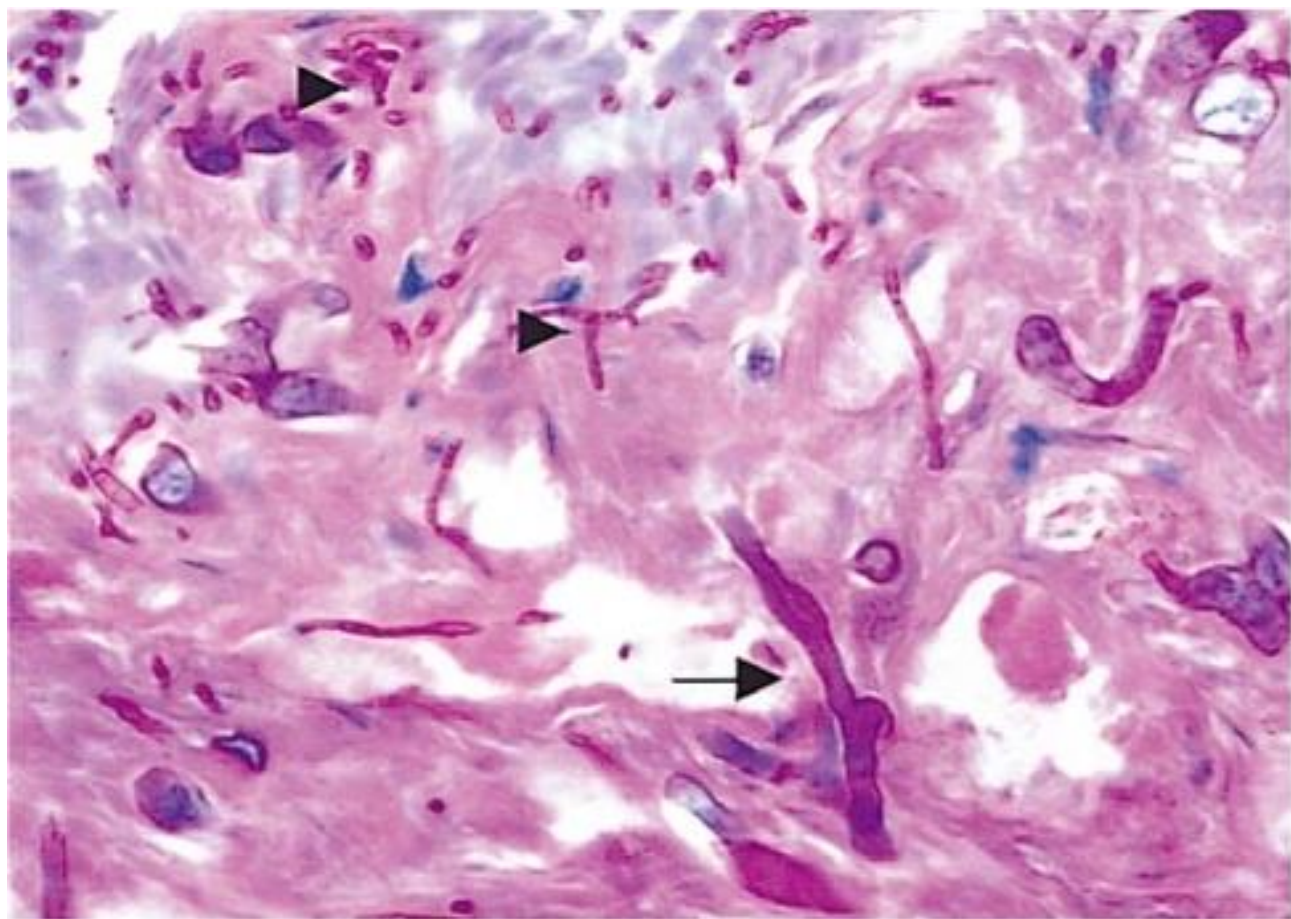














# SON SÖZ

- Mukormikozun histopatolojik tanısı kolay değil
- Klinisyen (cerrah, enfeksiyon hastalıkları), mikrobiyolog ve patoloğun güçlü işbirliğine ihtiyaç var
- Materyalin tamamı örneklenmeli
- Mutlaka HE, PAS, Gümüş boyaları birarada değerlendirilmeli
- Tiplendirme konusunda histopatolojinin yanılma payı var



**TEŞEKKÜRLER...**