PRINCIPAIS FIXADORES, SUA IMPORTÂNCIA E ALGUMAS TÉCNICAS DE COLORAÇÕES ESPECIAIS

CENTRO INFANTIL BOLDRINI

DEPARTAMENTO DE ANATOMIA PATOLÓGICA

APARECIDO PAULO DE MORAES

FIXAÇÃO

A Fixação é a maneira de preservar as células e manter partes de suas estruturas que tinham no organismo vivo

FIXADOR UNIVERSAL– FORMALINA TAMPONADA

- Água destilada .....900 ml
- Formol 37% a 40%.....100 ml
- Fosfato de sódio Monobásico.....4,0 g
- Fosfato de sódio Bibásico..... 6,5 g

Volume do Líquido Fixador deverá ser no mínimo 20 vezes maior que o tamanho da peça

- Tempo ideal de Fixação de 01 a 24 horas

- PH ideal para boa Fixação – 7,0 ou PH neutro

- A FORMALINA TAMPONADA não precipita as proteínas, ótimo para os Lipídios, mantem o Glicogênio

- A FORMALINA **não** deve ser usada com cromatos, porque oxida-se facilmente

- A FORMALINA sem Tampão oxida, produzindo ácido fórmico- formando um composto FORMALINA hematina.

- Álcool como fixador, preserva o Glicogênio, altera o detalhe nuclear e comprime o Citoplasma.

- ACETONA- Boa para estudos histoquímicos, preserva Enzimas: LIPASES / FOSFOTASES

LÍQUIDO DE BOUIN

- Água destilada ..... 300 ml
- Formol 37 a 40% ..... 100 ml
- Ácido Acético Glacial ..... 20 ml
- Ácido Pícrico a Saturação..... 1,5g

Fixador rápido: até 24 horas

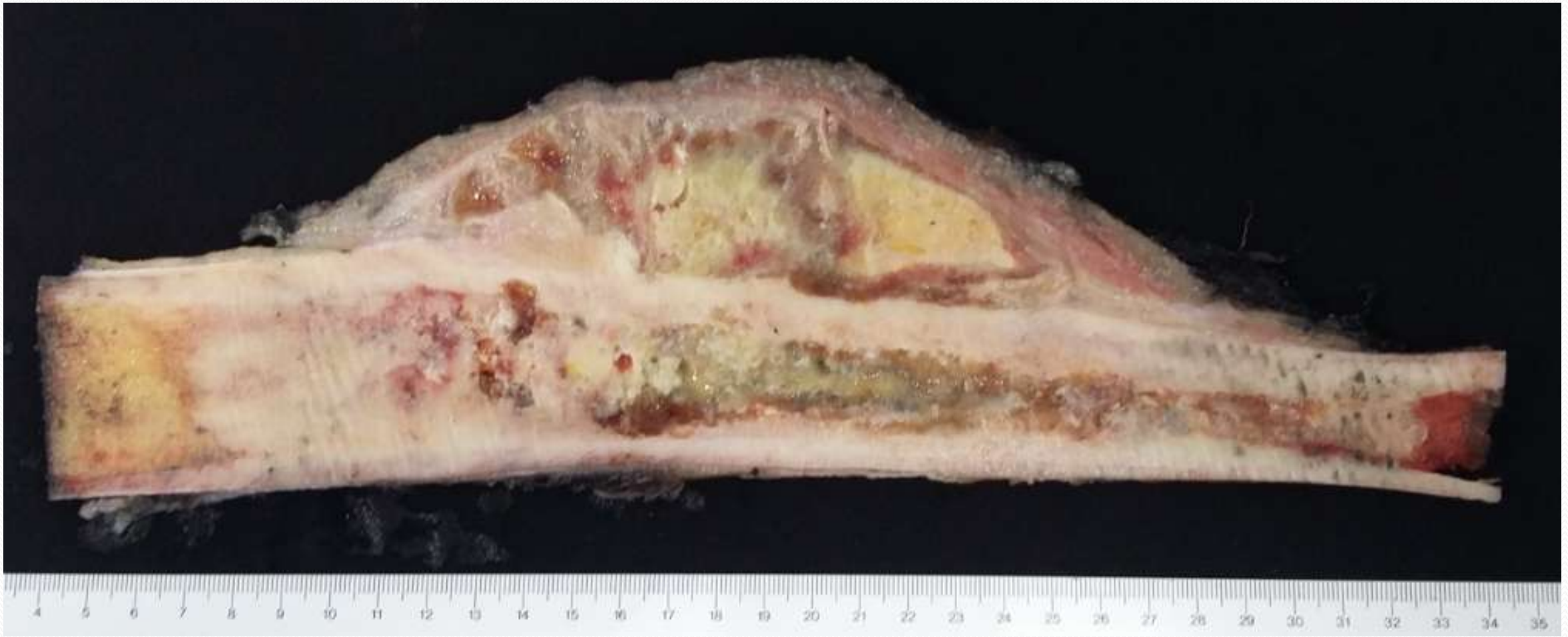
Desvantagens:Precipita as proteínas – perda da basofilia

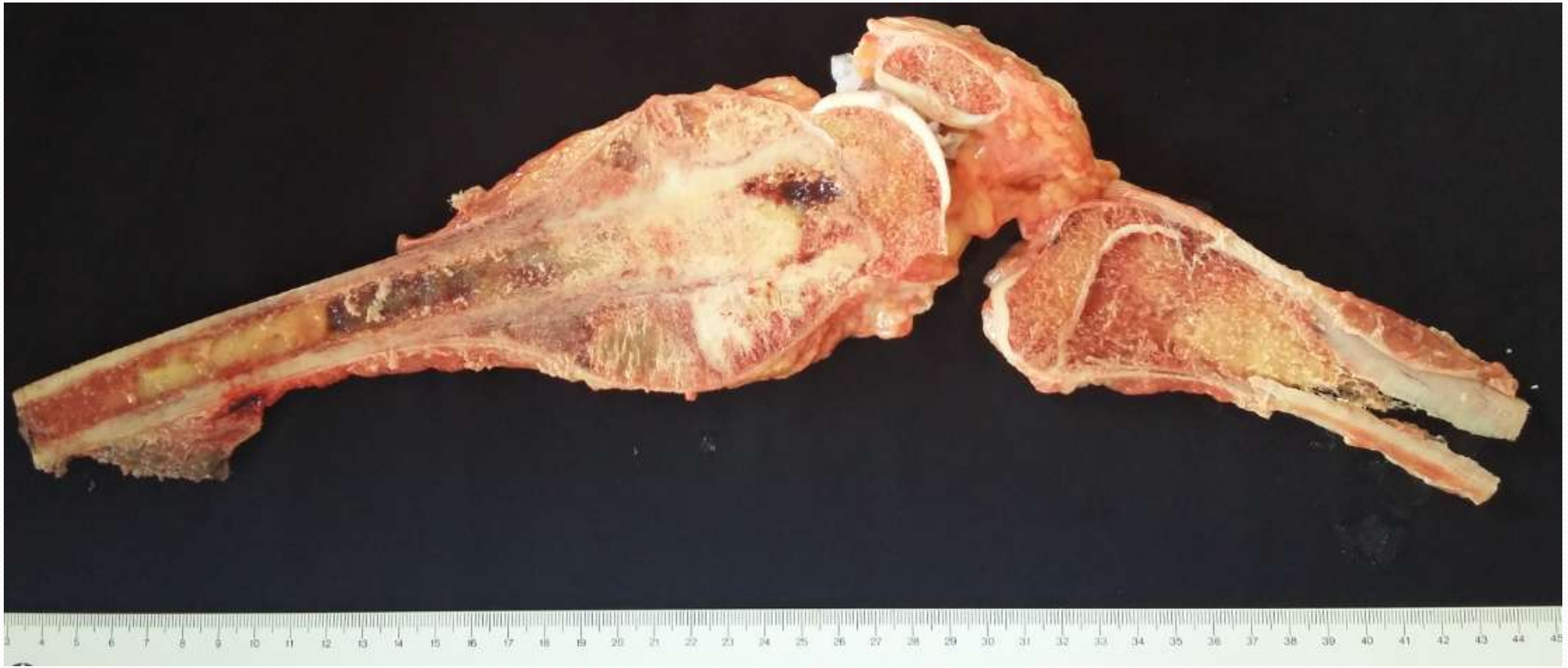
FIXADOR DUBOSCQ - BRASIL

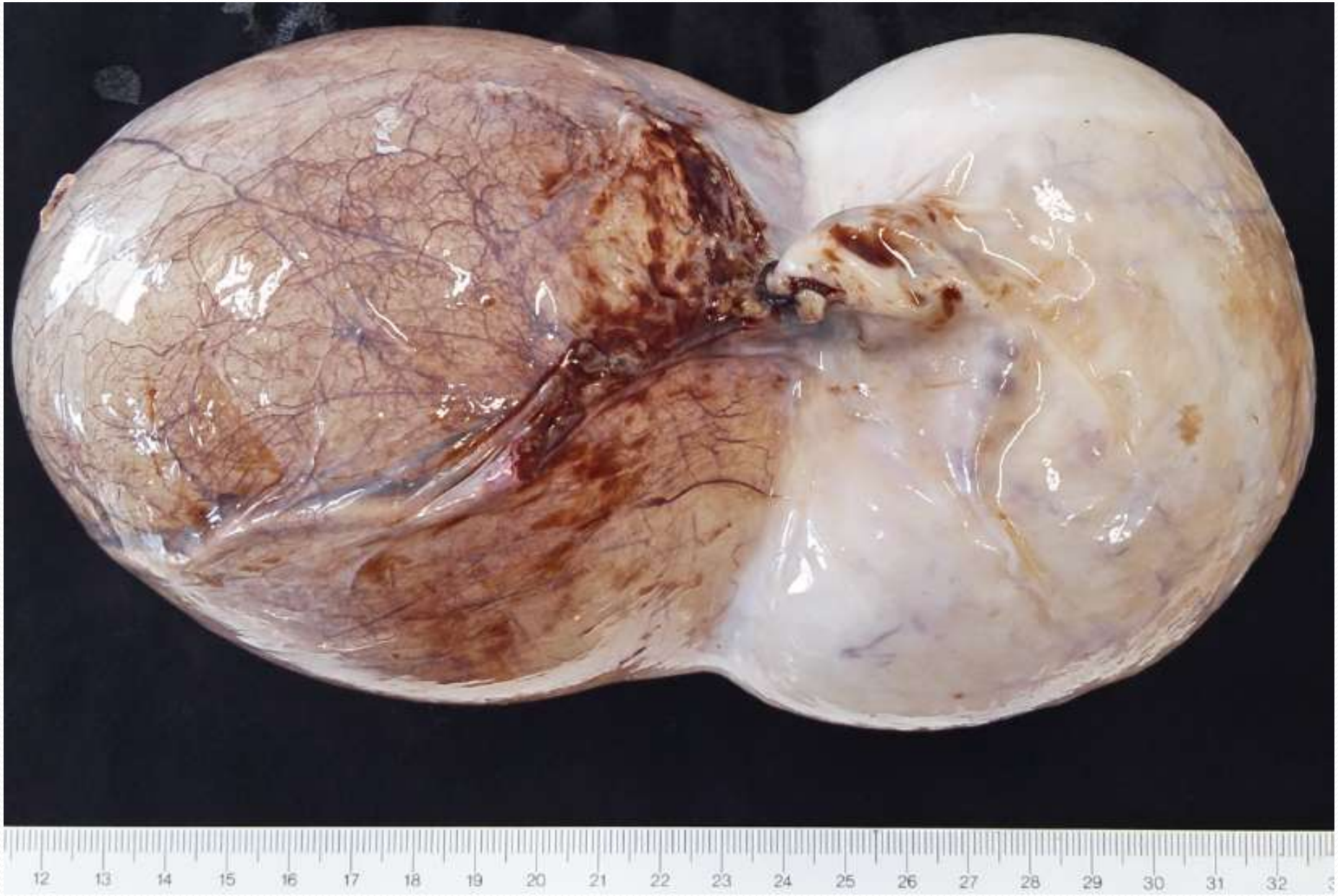
- Álcool 80% ..... 150 ml
- Formol 37 a 40% ..... 60 ml
- Ácido Acético Glacial ..... 15 ml
- Ácido Pícrico ..... 1,5 g

Fixador rápido: Fixa em 02 a 12 horas

Muito usado em biópsias renais e de testículos.



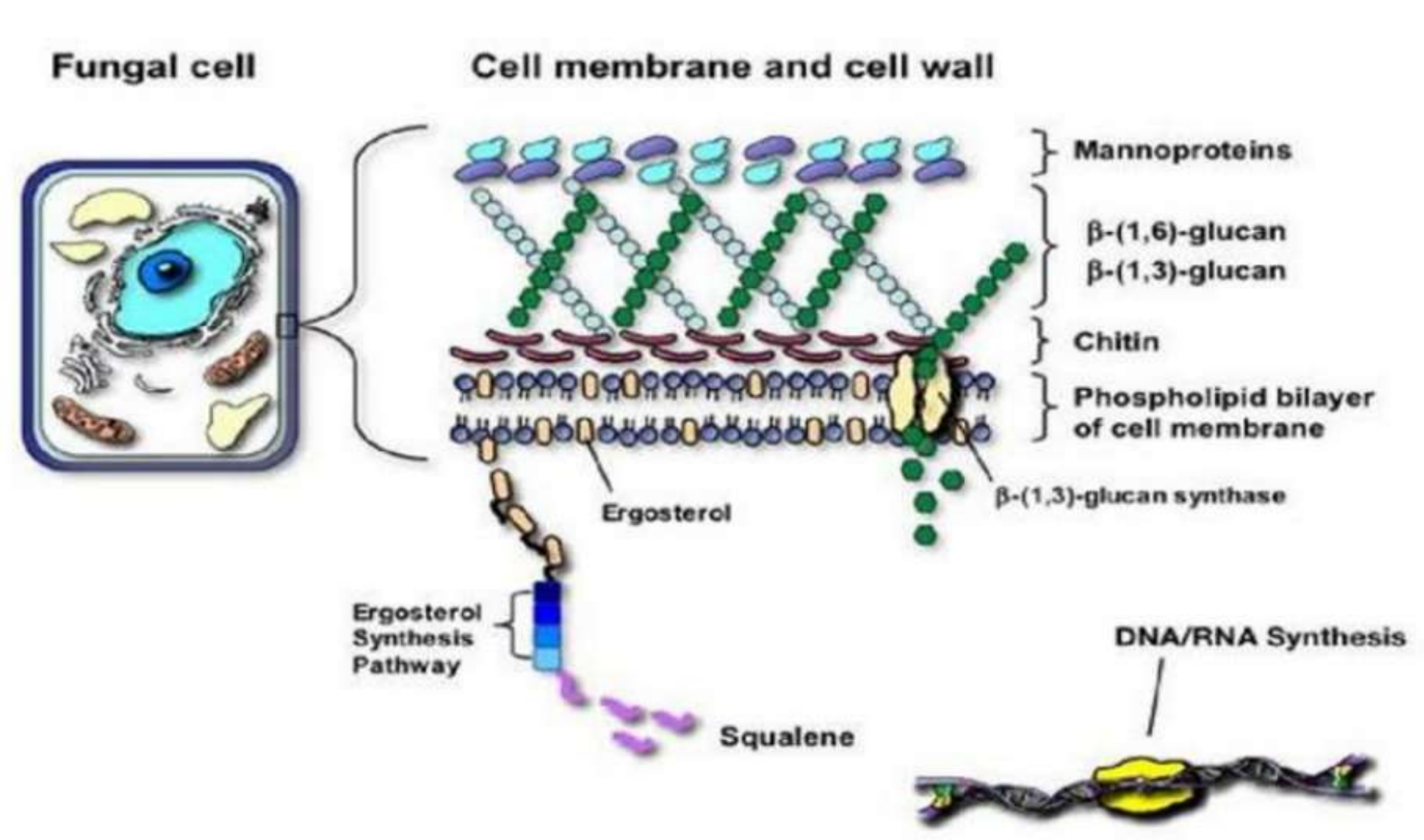



12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32

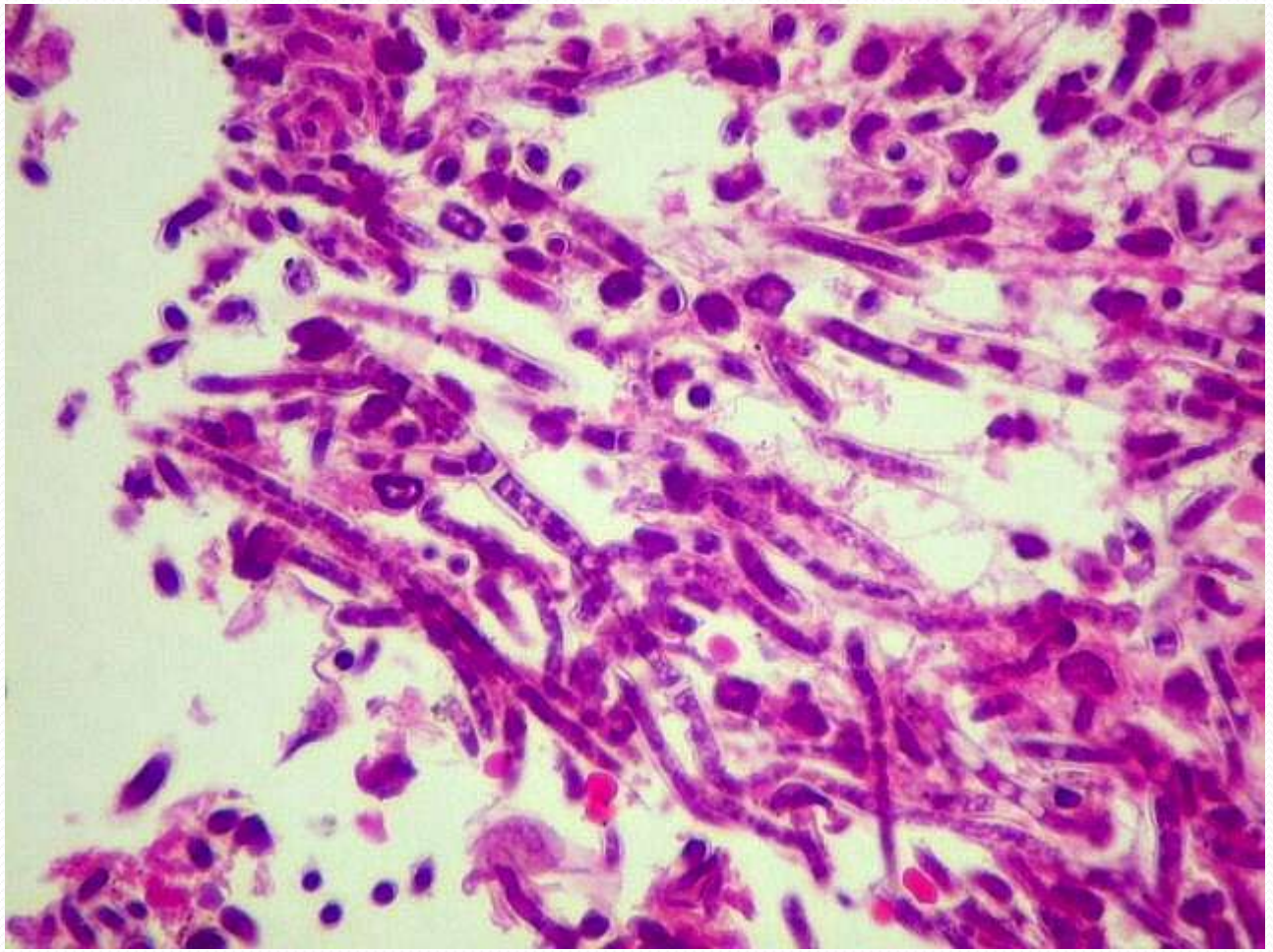
MÉTODO DE GOMORI - GROCOTT – COM METENAMINA - ARGÊNTICA

- Membranas basais - pela redução da prata
- Paredes celulares - pela oxidação do ácido – crômico
- Composição das paredes celulares dos fungos – Quitina / Proteínas e Lipídeos
- Reação do ácido crômico com polissacarídeos

PAREDE E MEMBRANA DOS FUNGOS

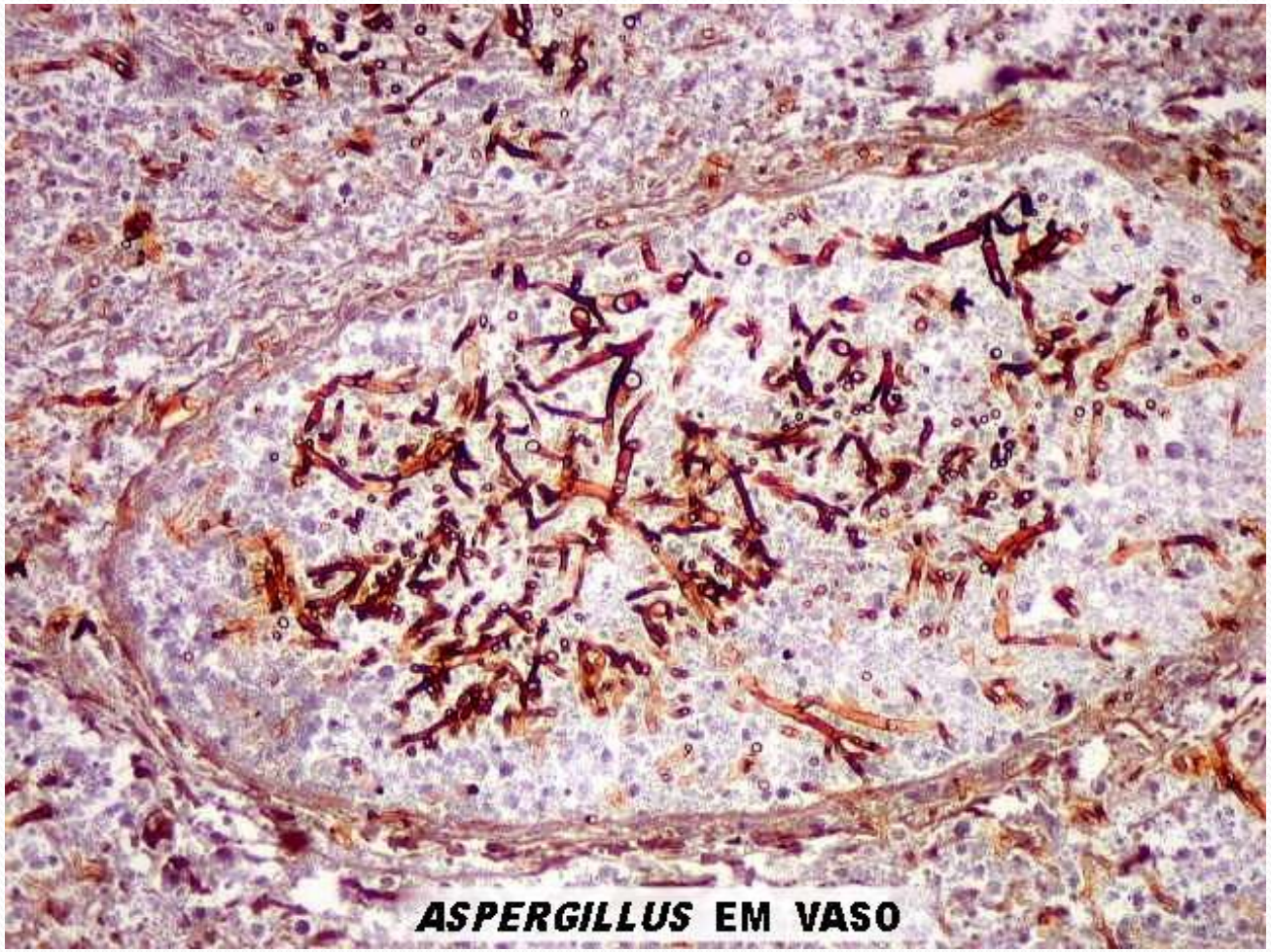


COLORAÇÃO DE HEMATOXILINA/EOSINA

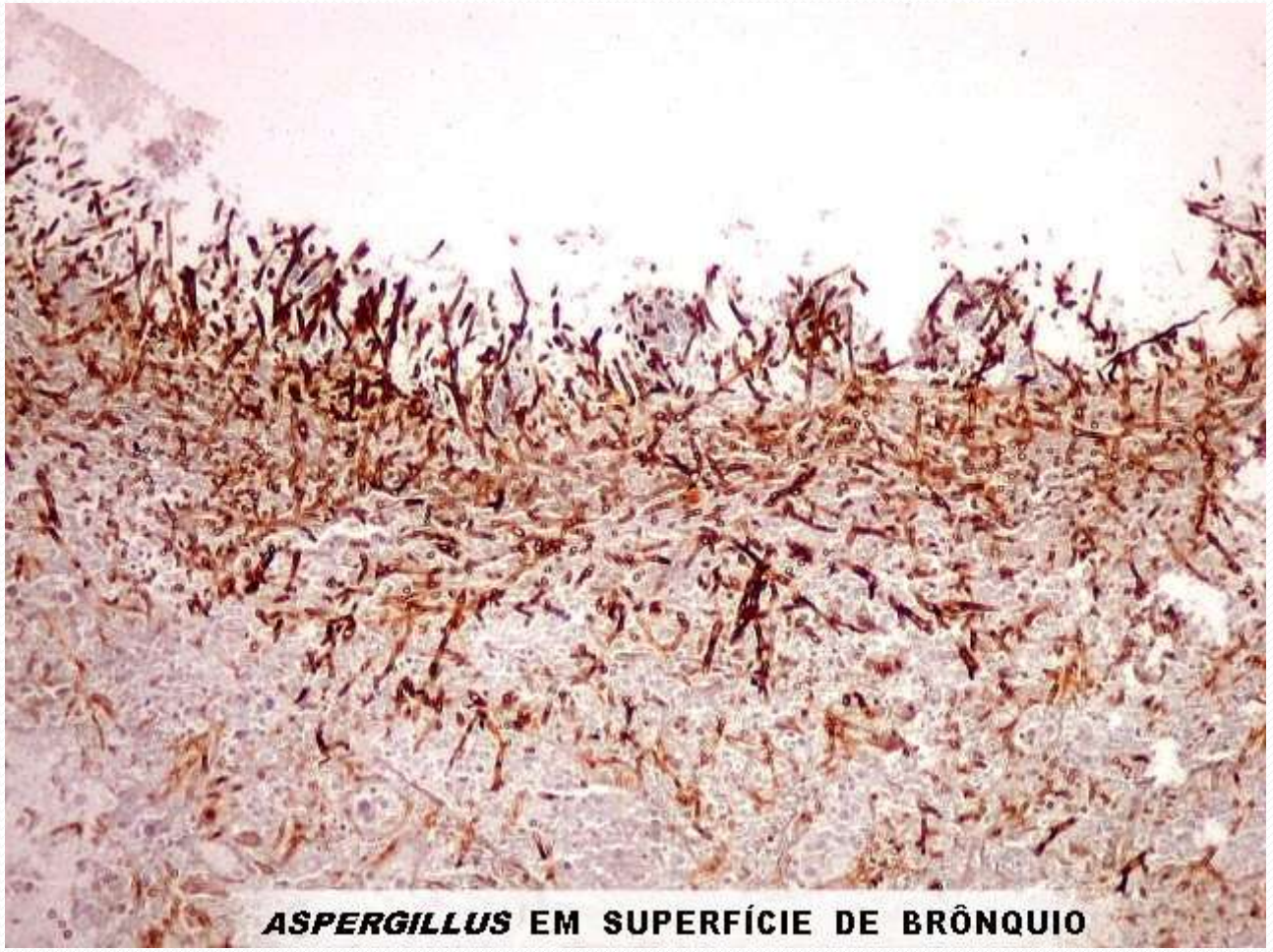


Hifas de *Aspergillus*

GROCOTT SEM COLORAÇÃO DE FUNDO

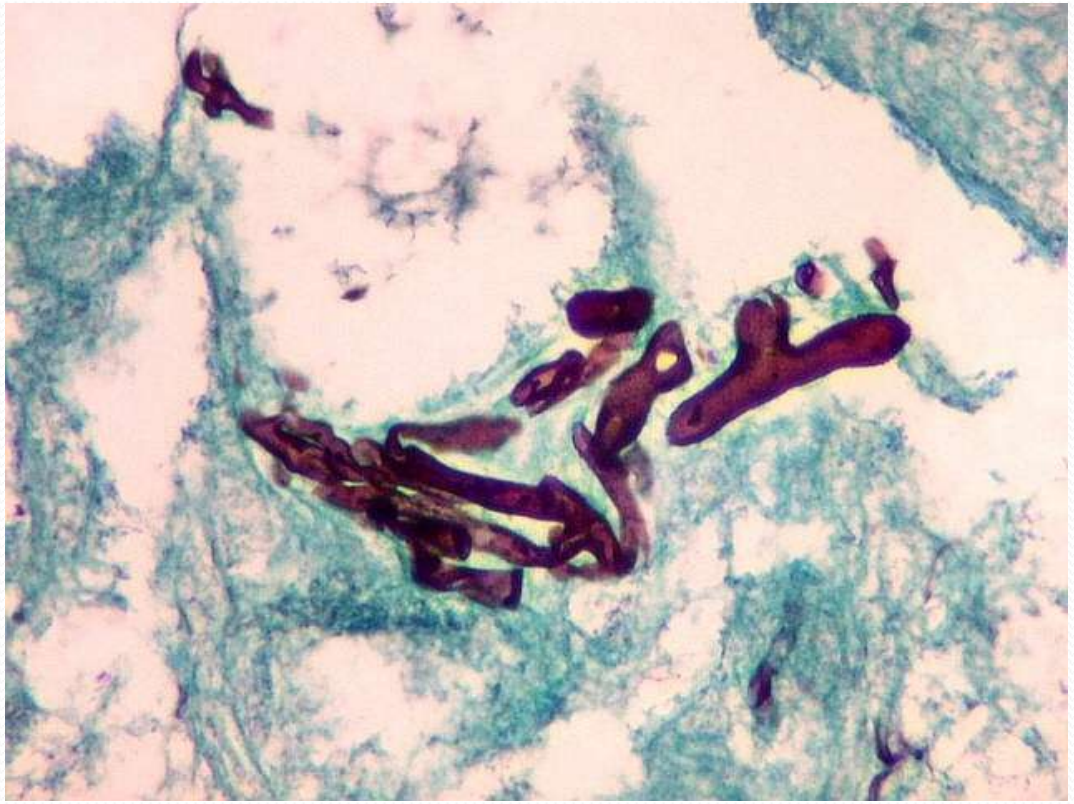


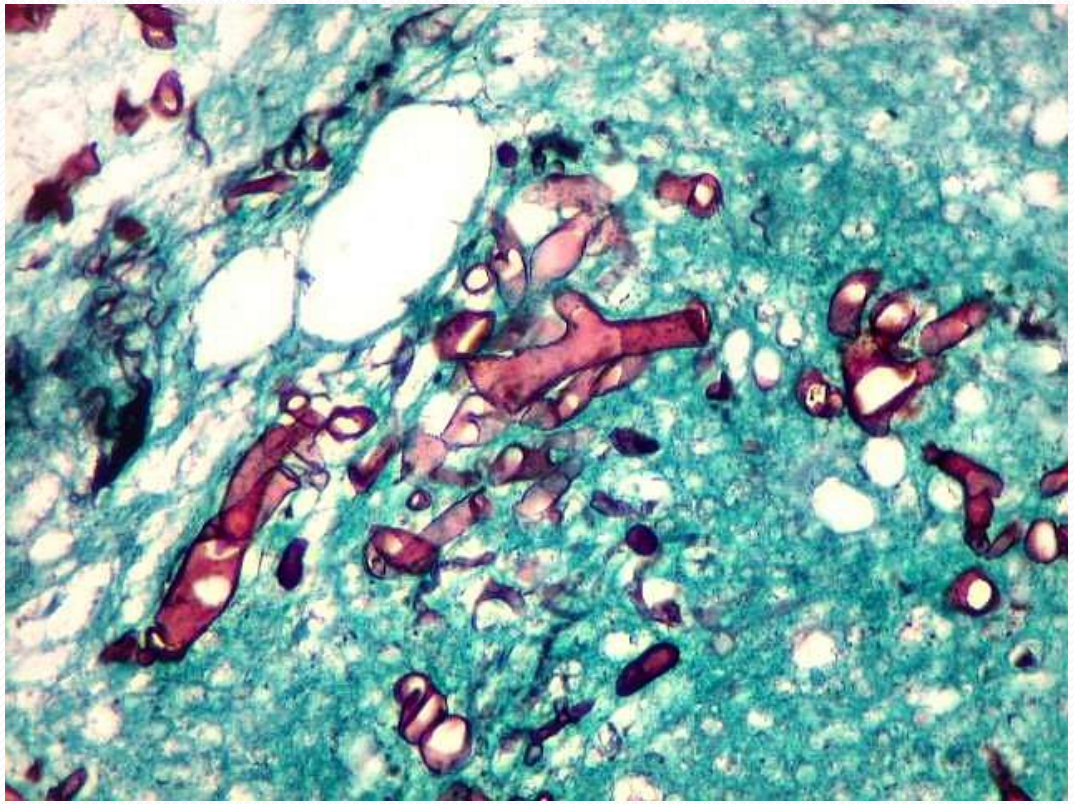
GROCOTT SEM COLORAÇÃO DE FUNDO



ASPERGILLUS **EM SUPERFÍCIE DE BRÔNQUIO**

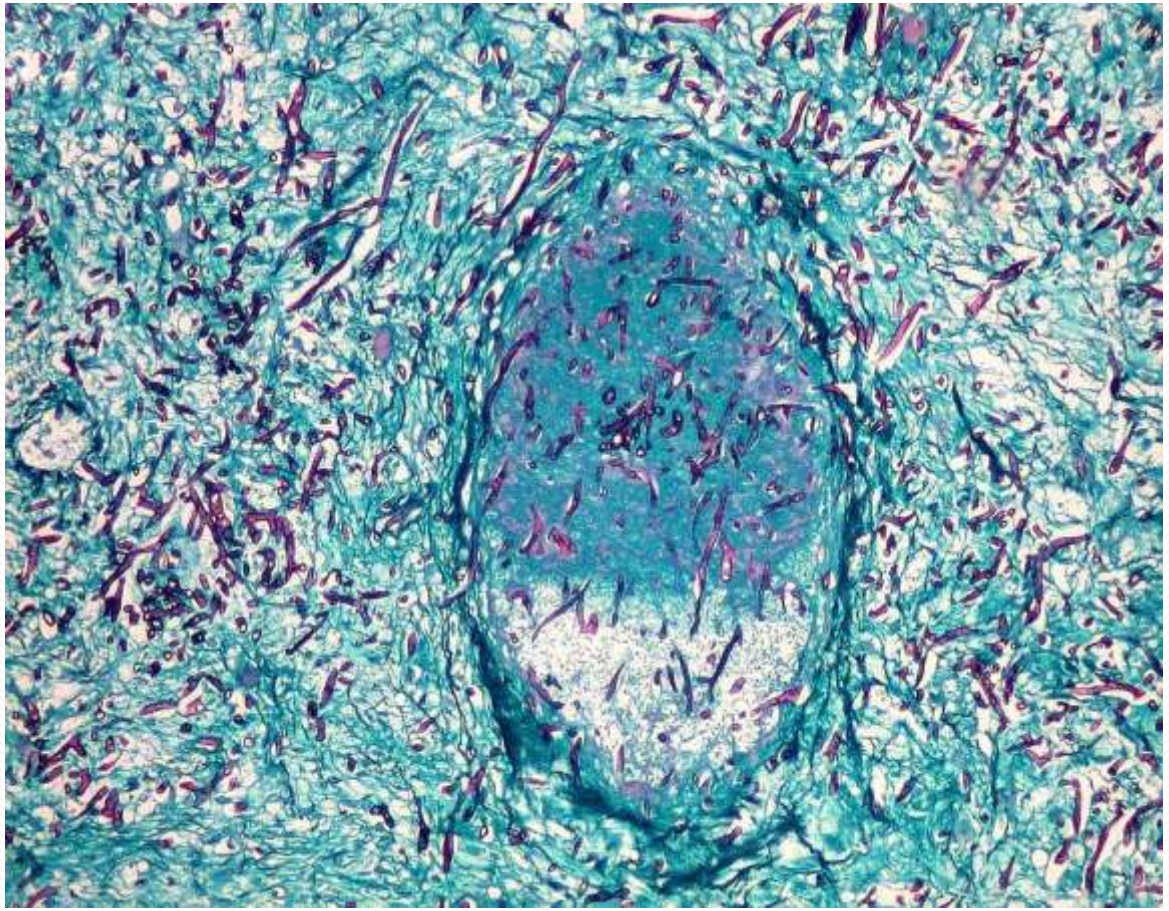
GROCOTT + VERDE LUZ

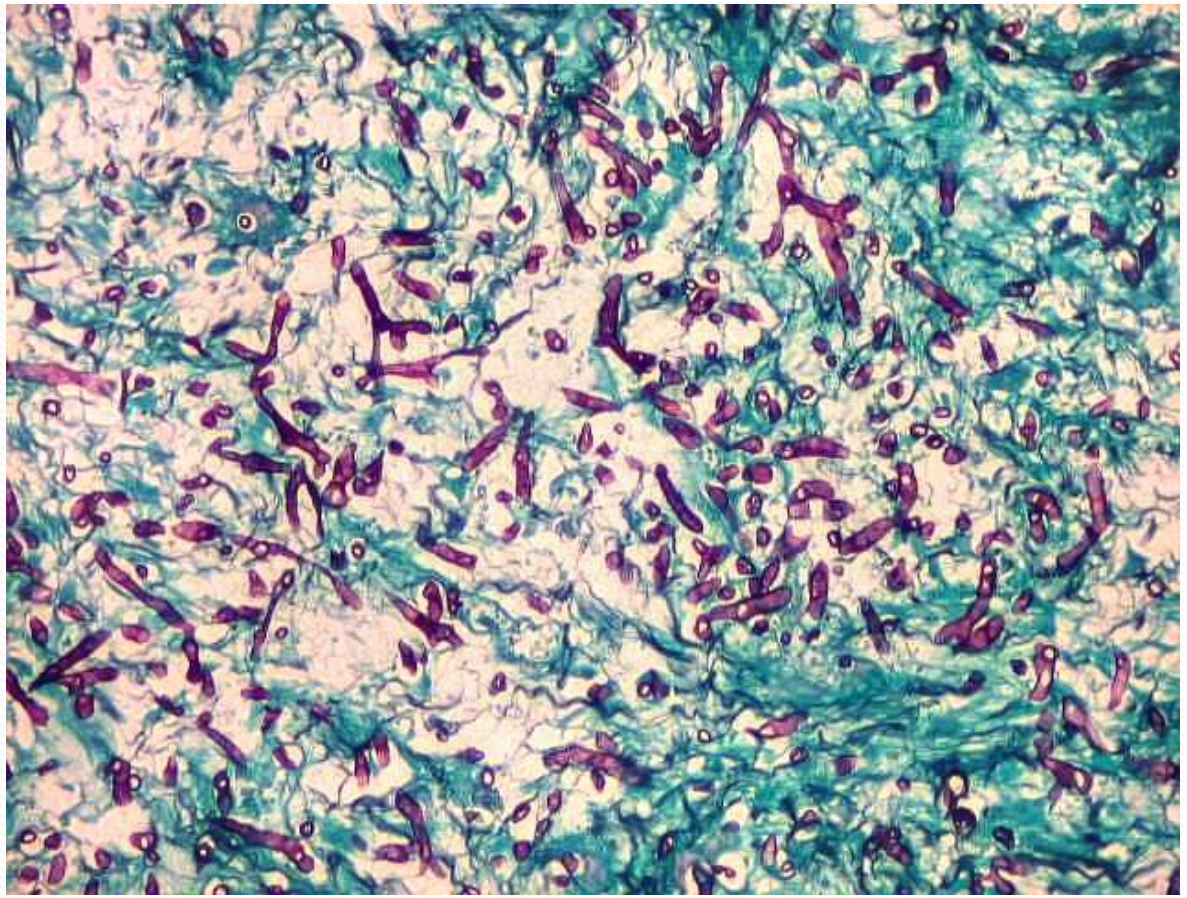




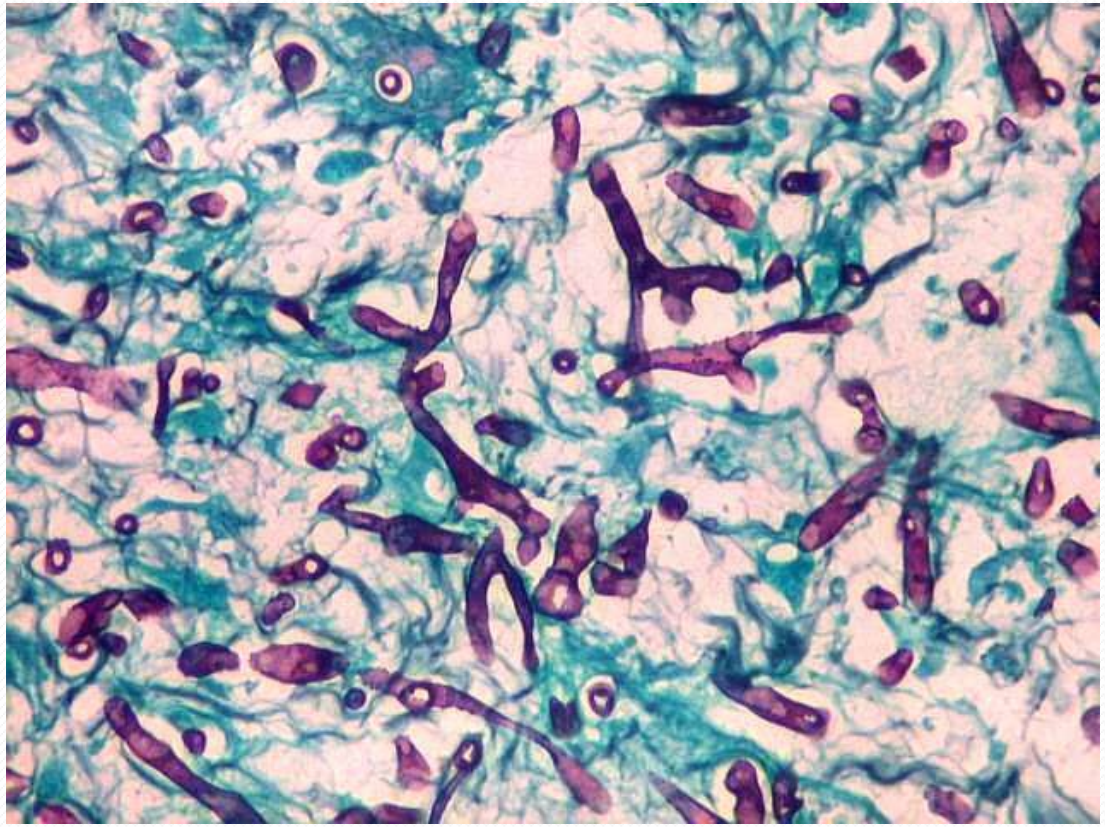
Mucormicose rino-órbito-cerebral

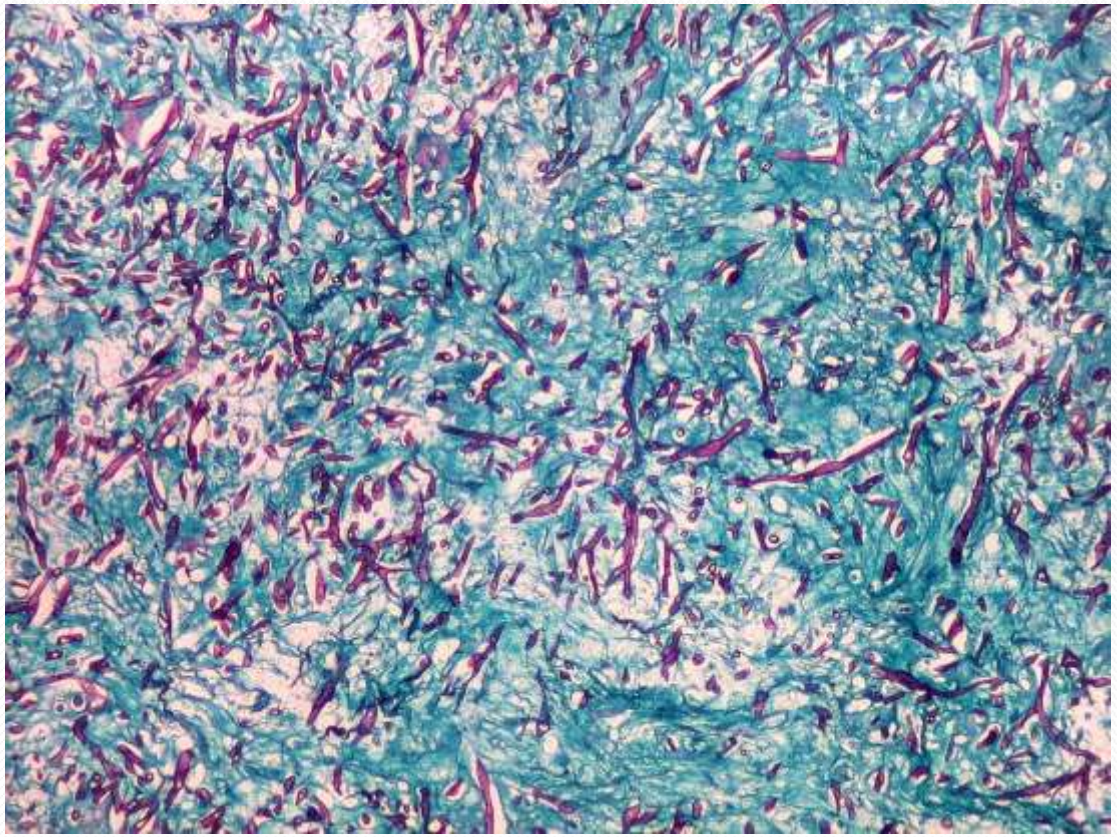
GROCOTT+VERDE LUZ(ASPERGILOSE)



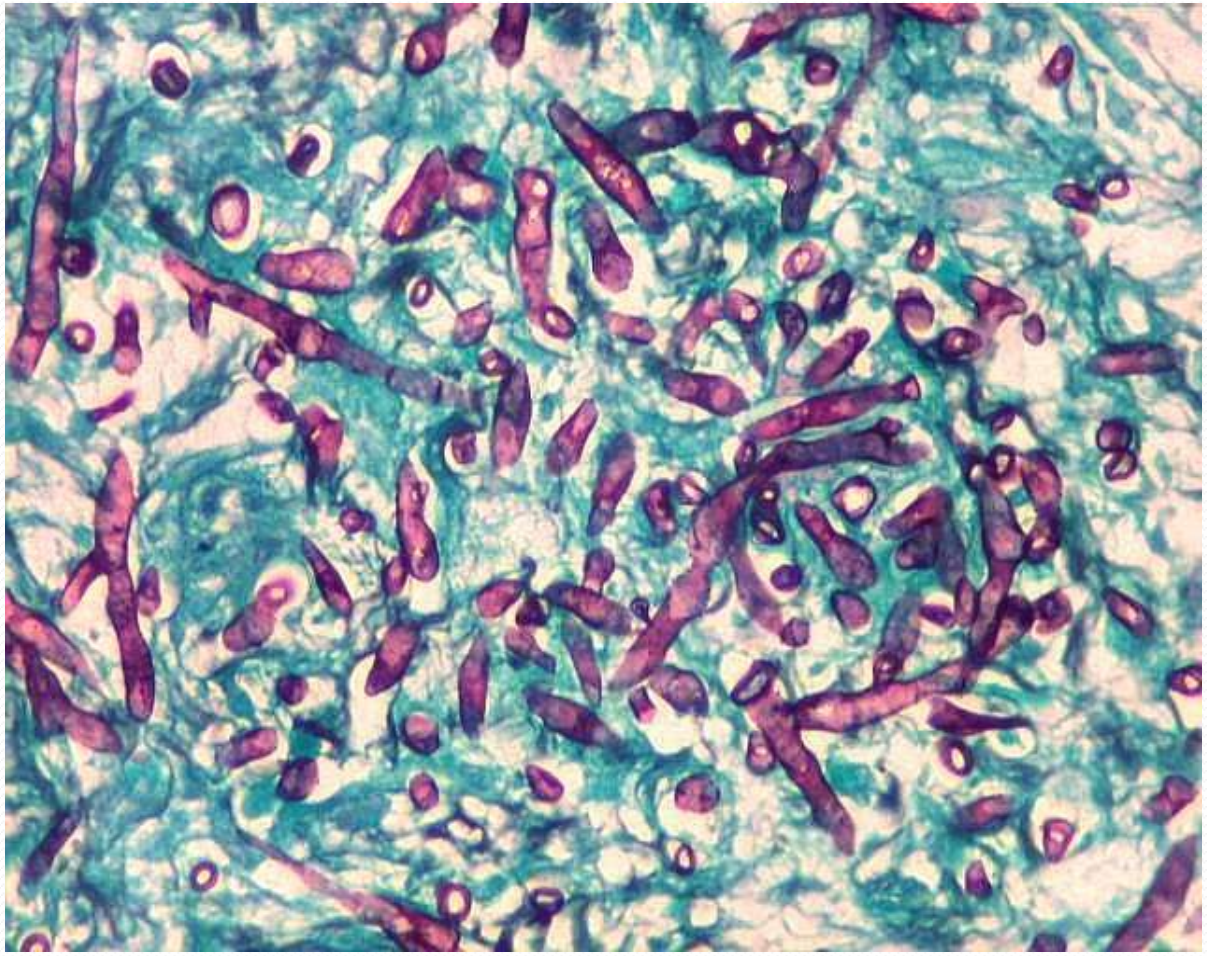


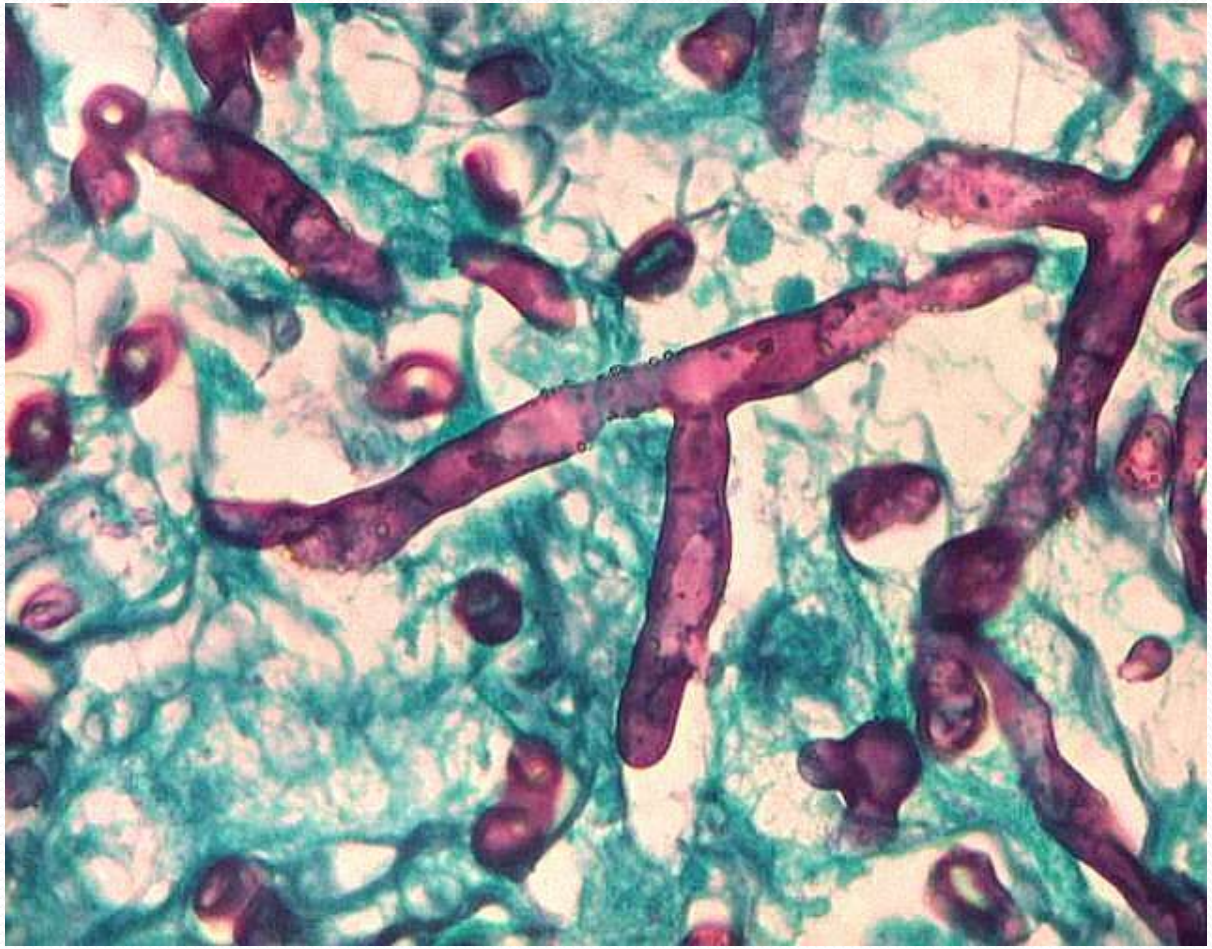
GROCOTT+VERDE LUZ(ASPERGILOSE)



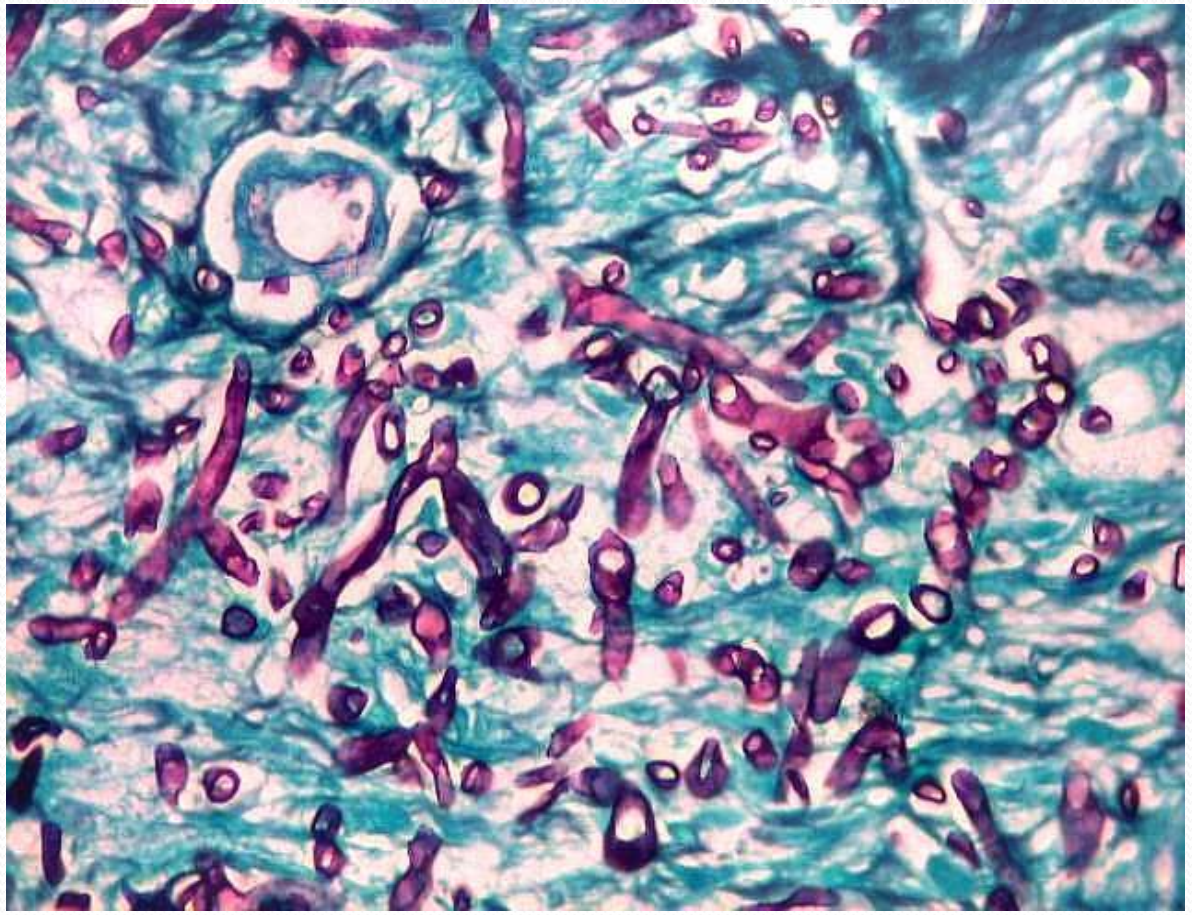


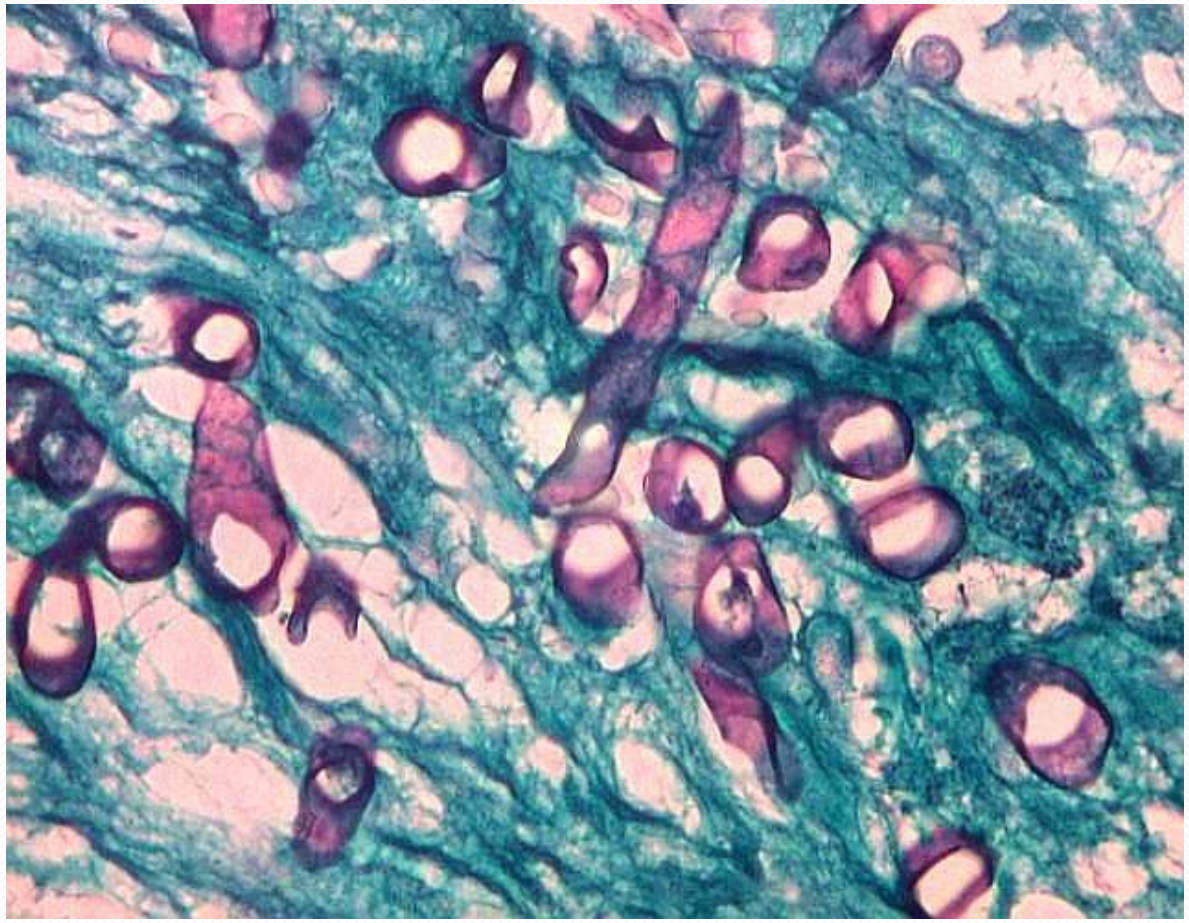
GROCOTT+VERDE LUZ(ASPERGILOSE)



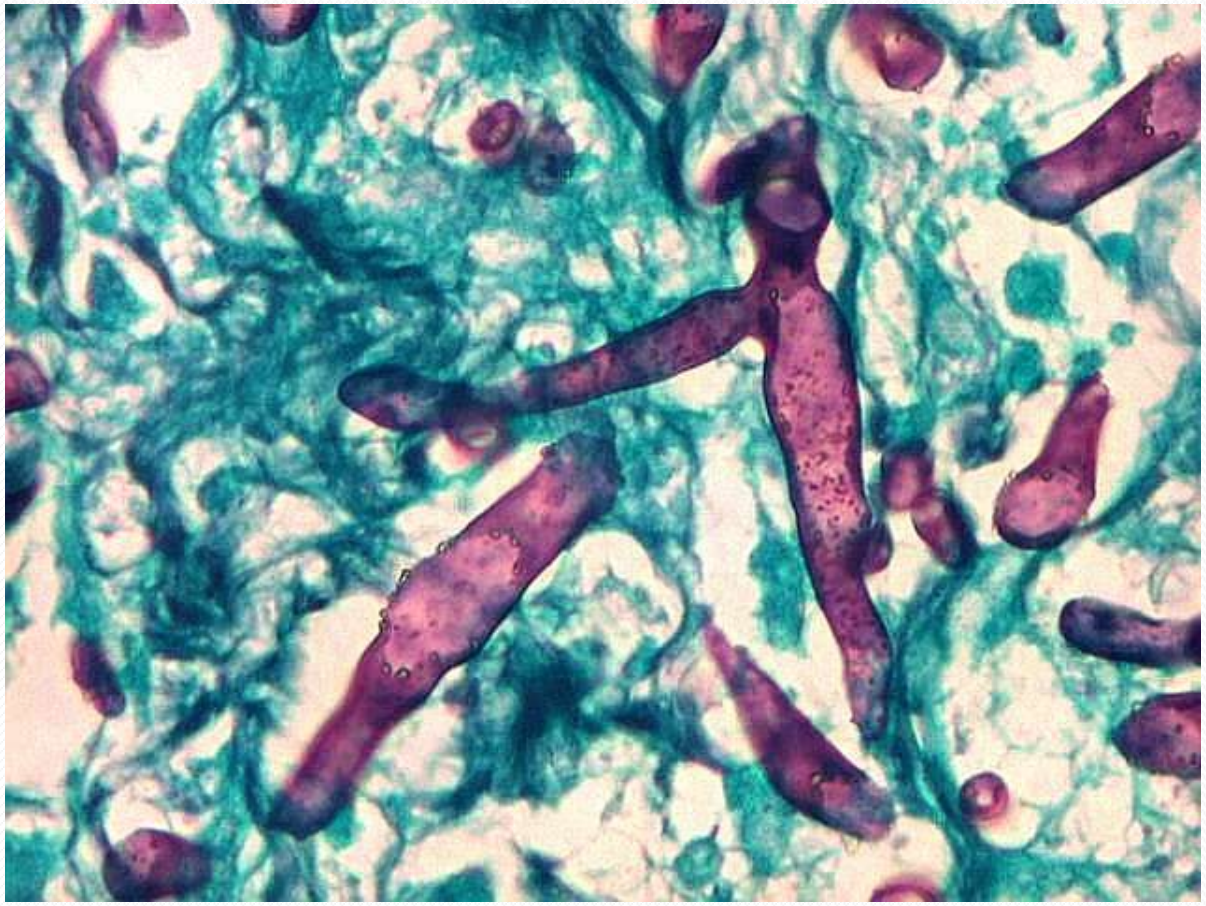


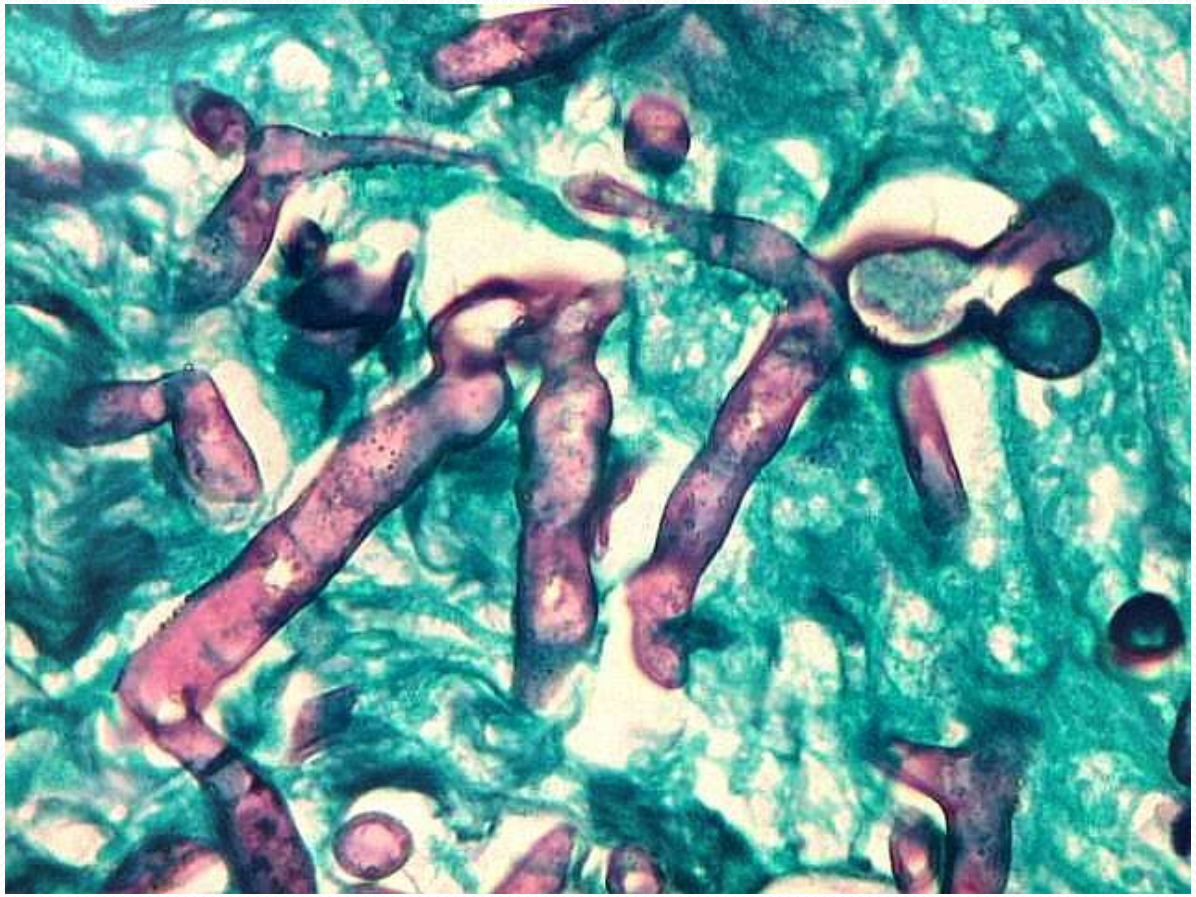
GROCOTT+VERDE LUZ(ASPERGILOSE)



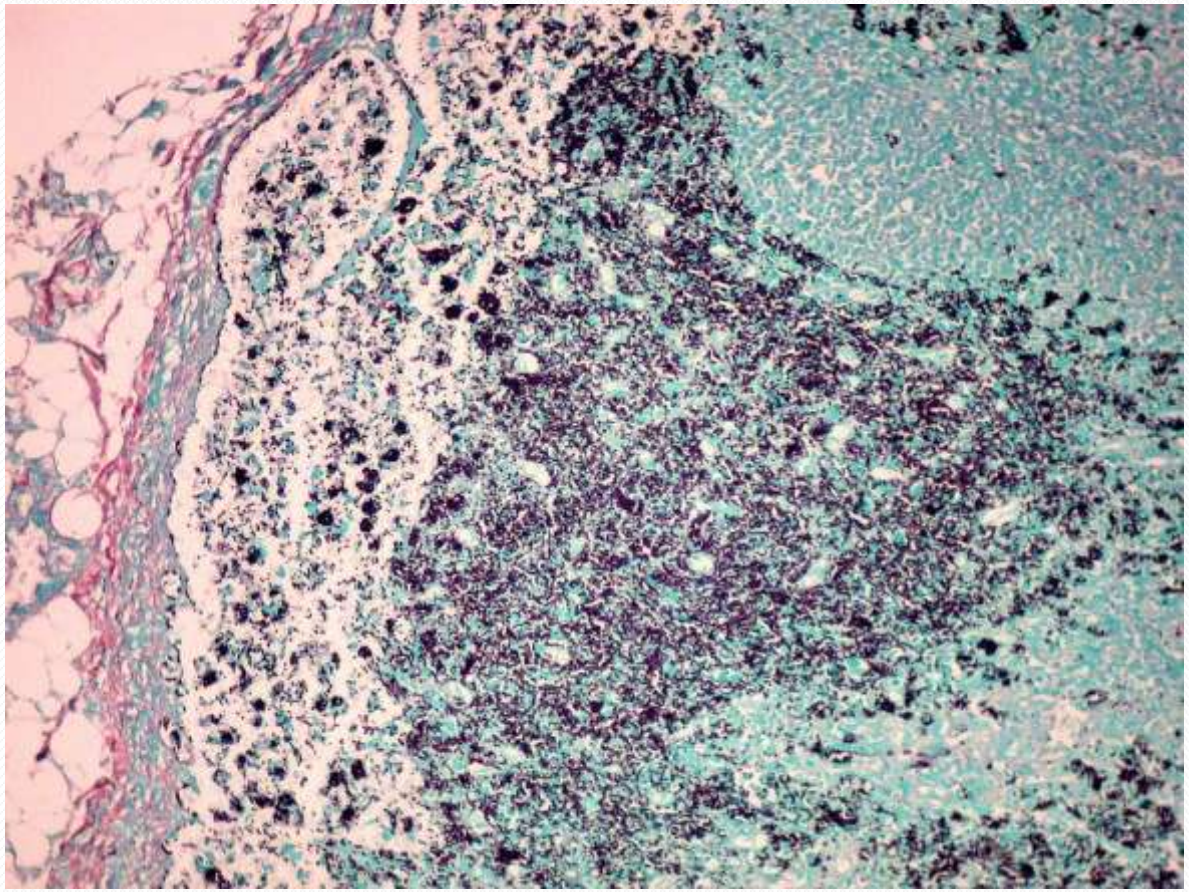


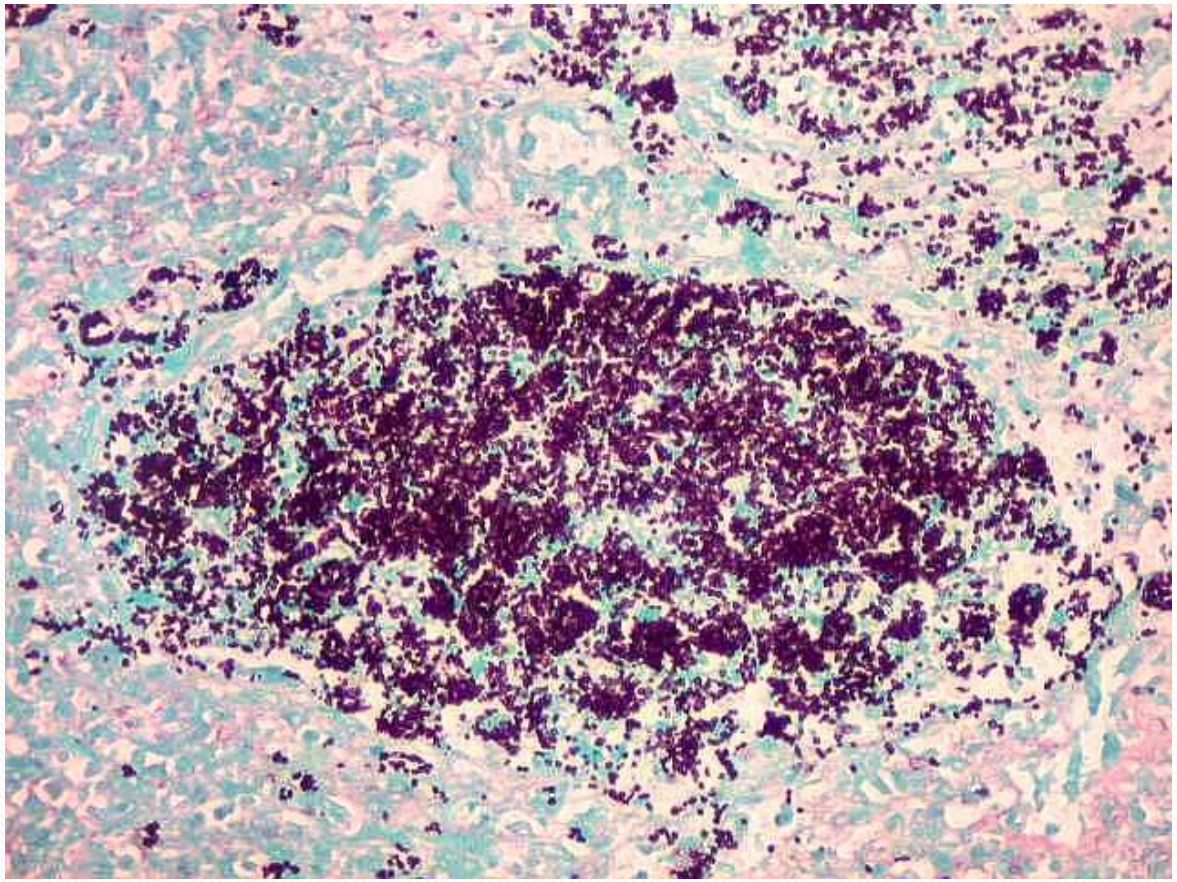
GROCOTT+VERDE LUZ(ASPERGILOSE)



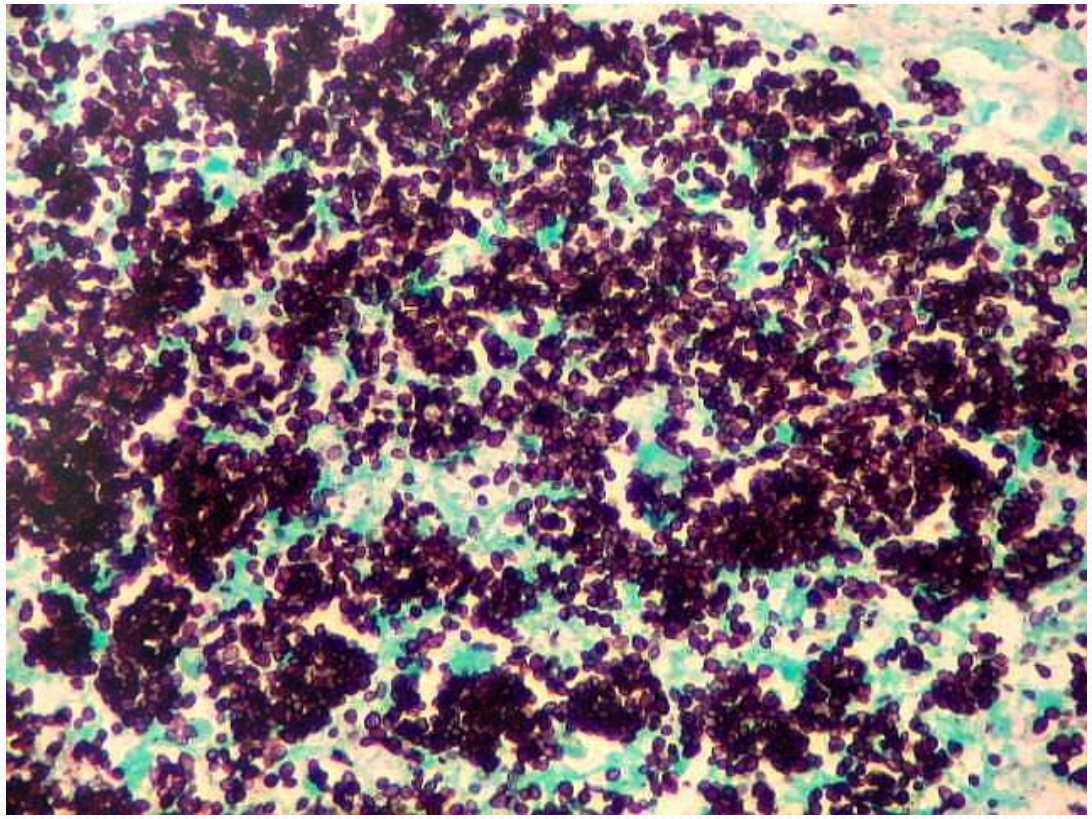


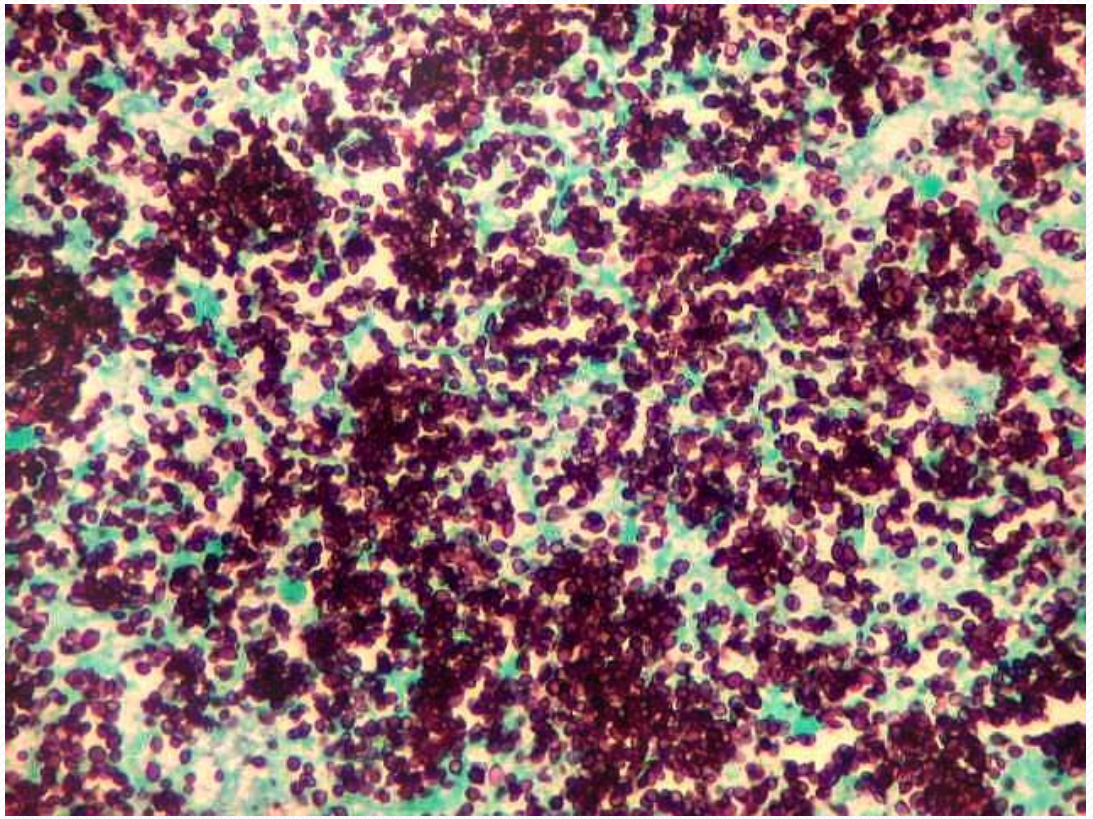
GROCOTT+VERDE LUZ(HISTOPLASMOSE)



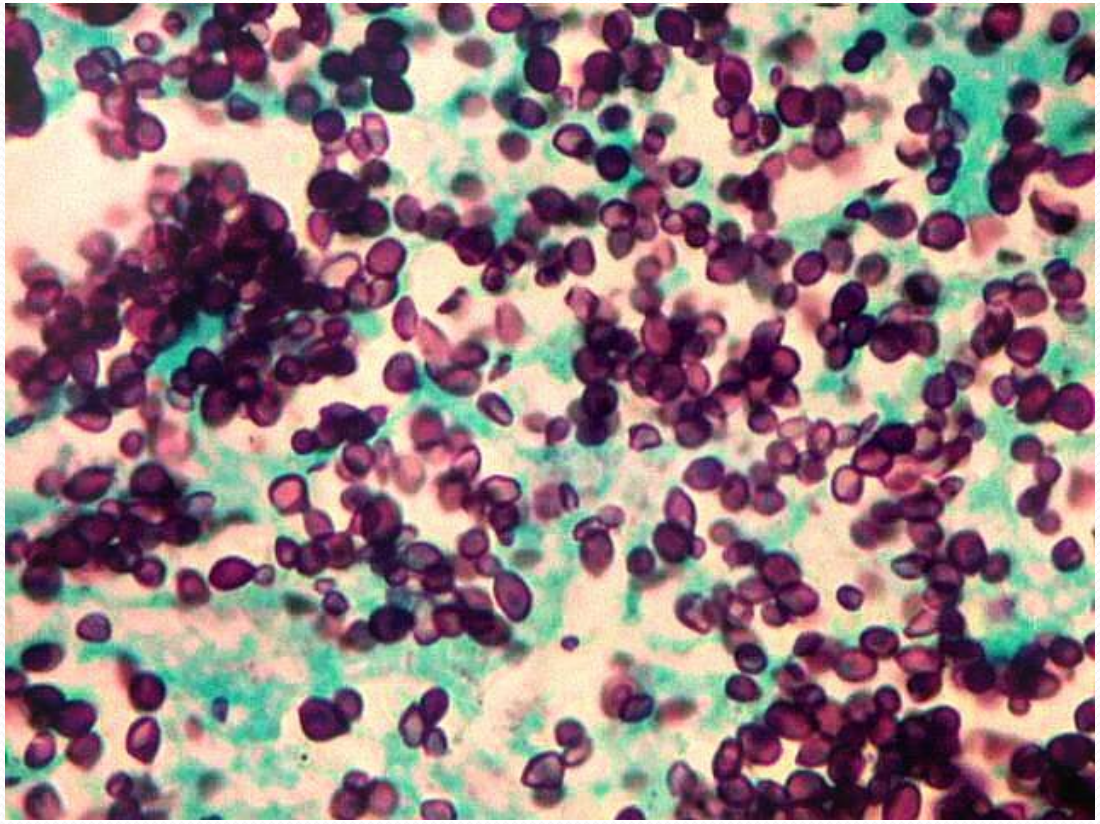


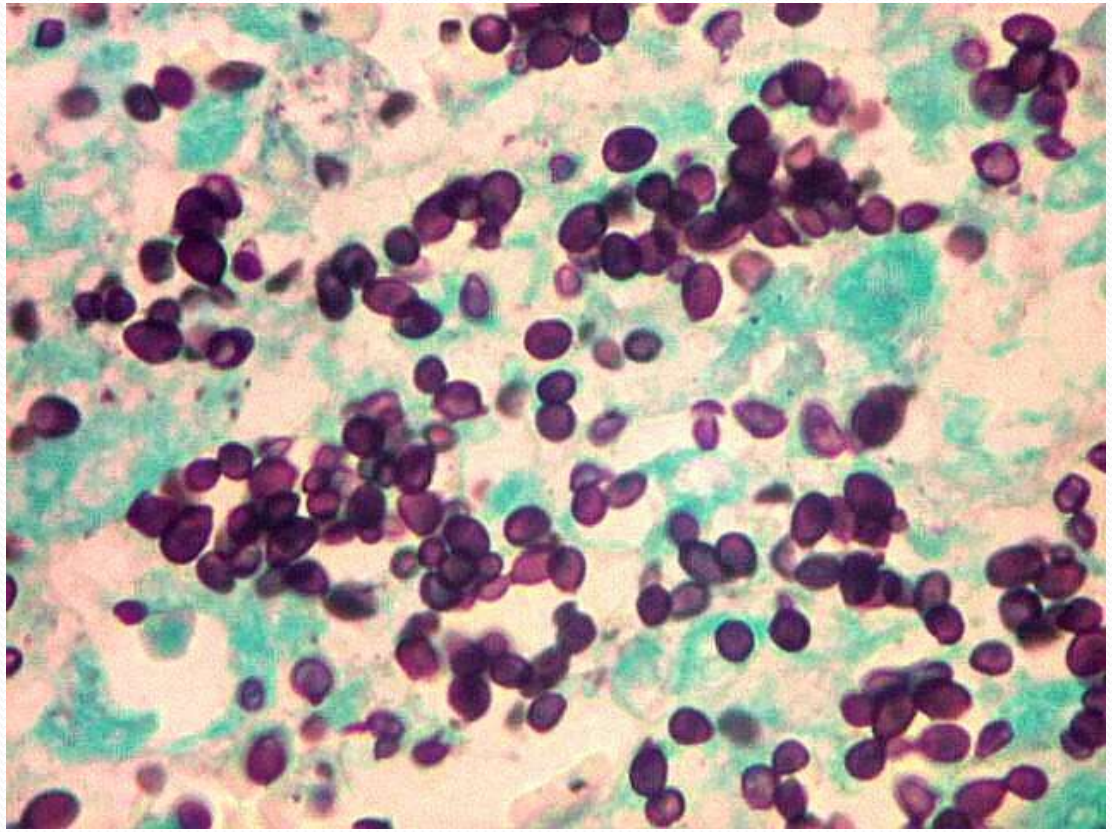
GROCOTT+VERDE LUZ(HISTOPLASMOSE)



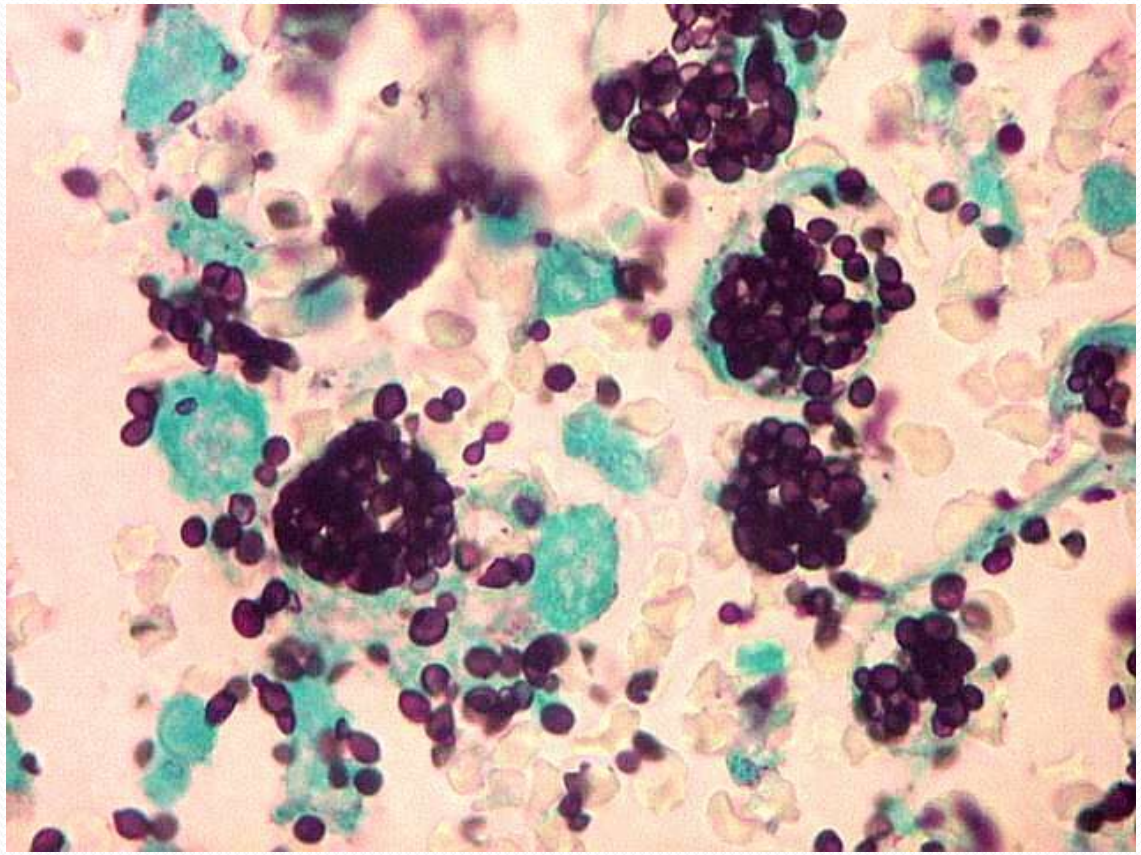


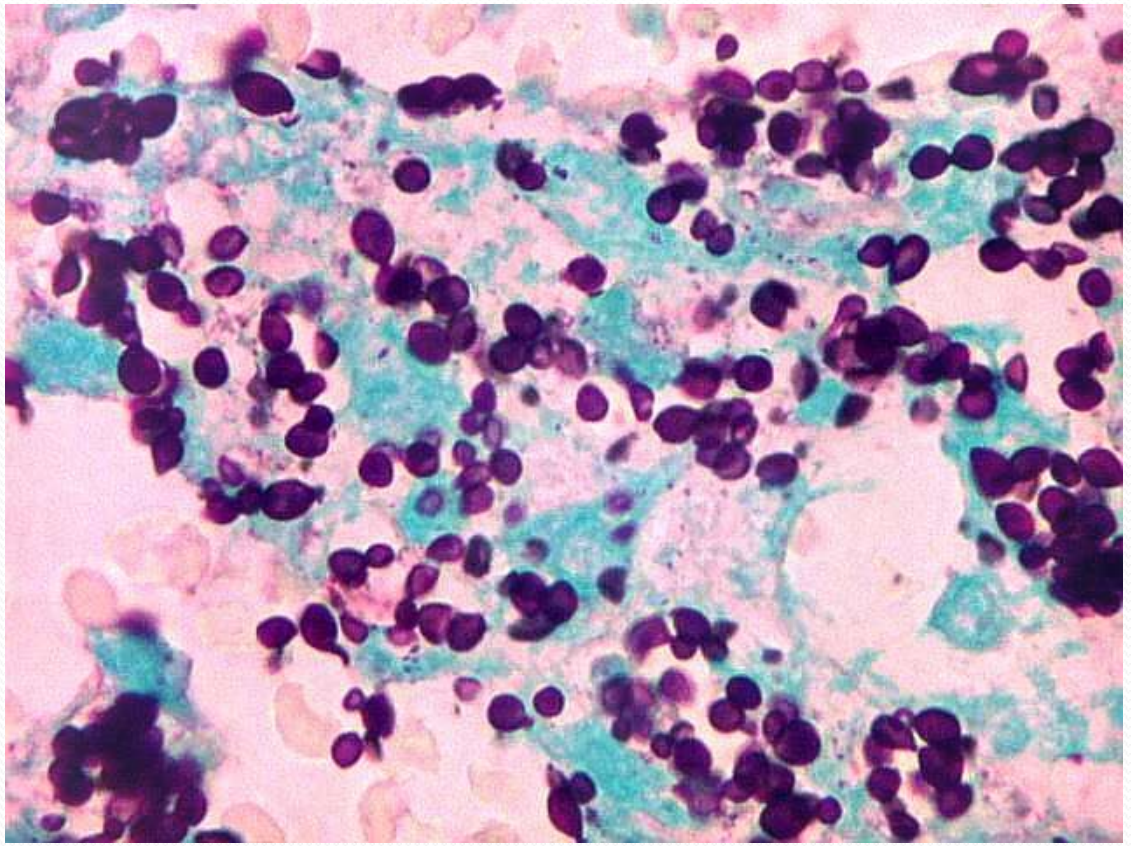
GROCOTT+VERDE LUZ(HISTOPLASMOSE)



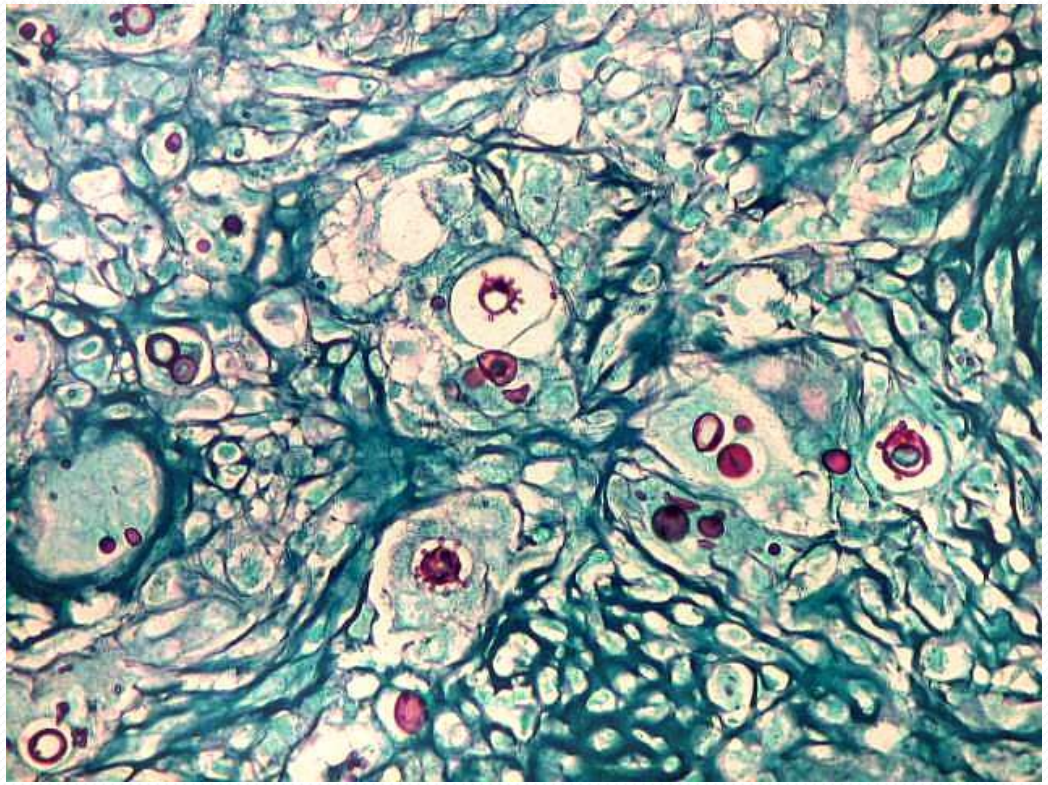


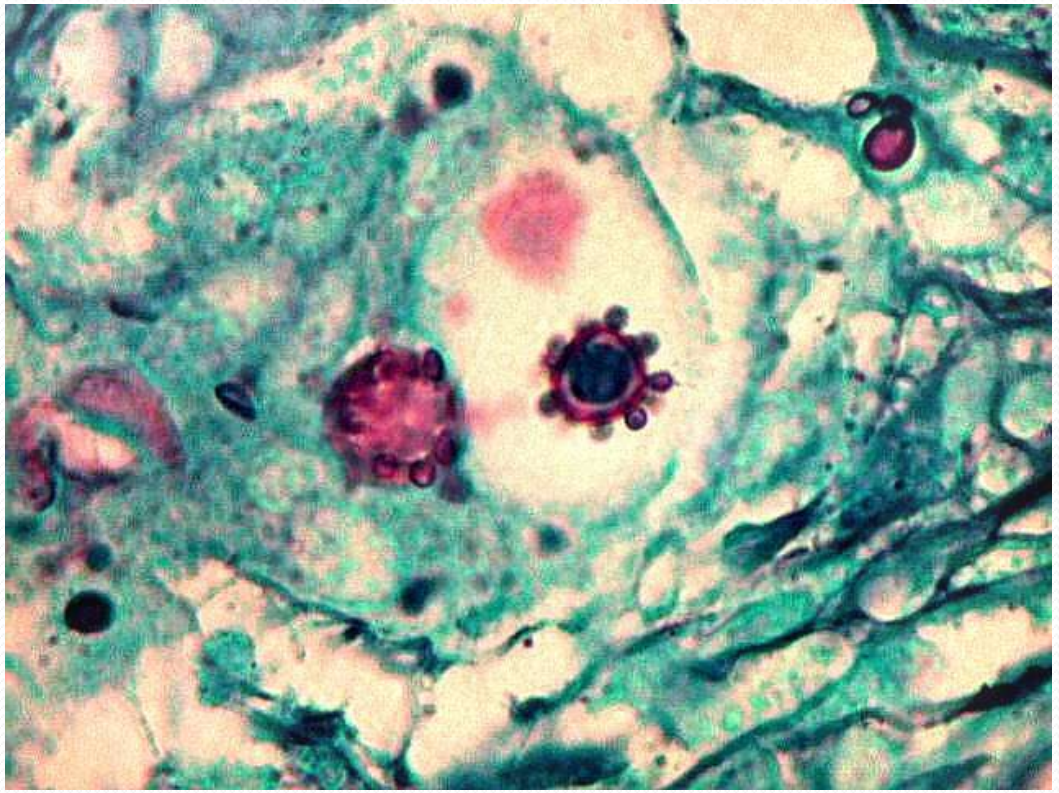
GROCOTT+VERDE LUZ(HISTOPLASMOSE)



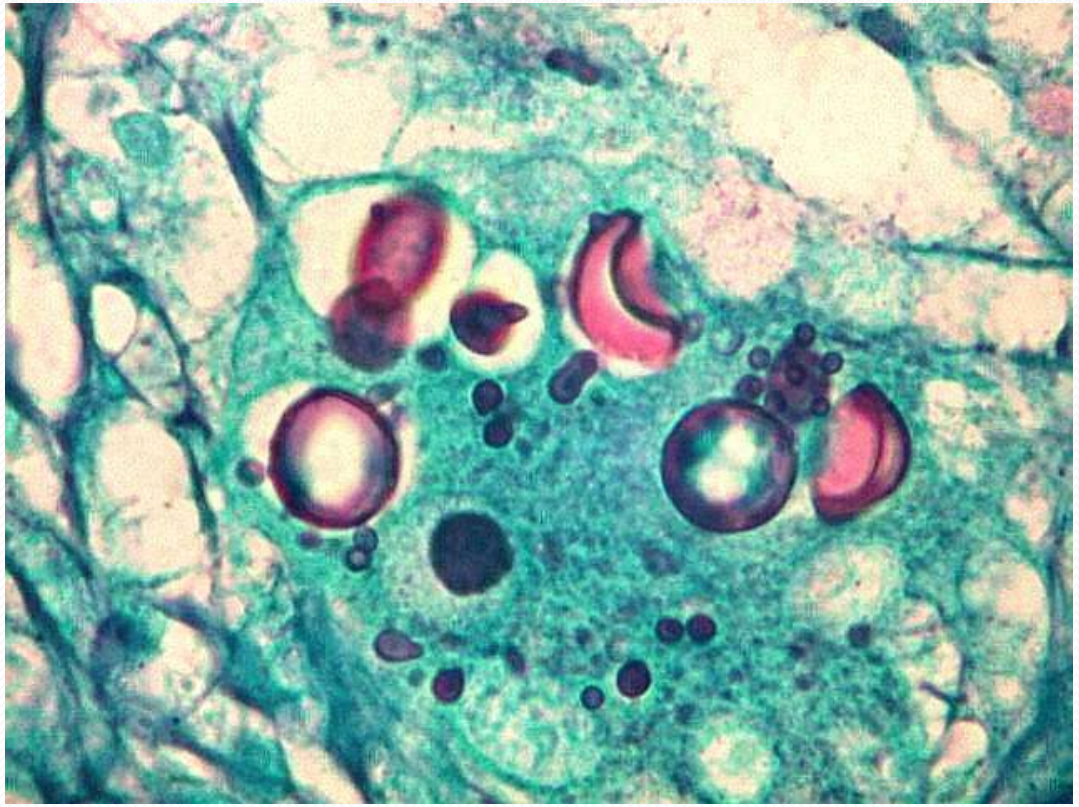


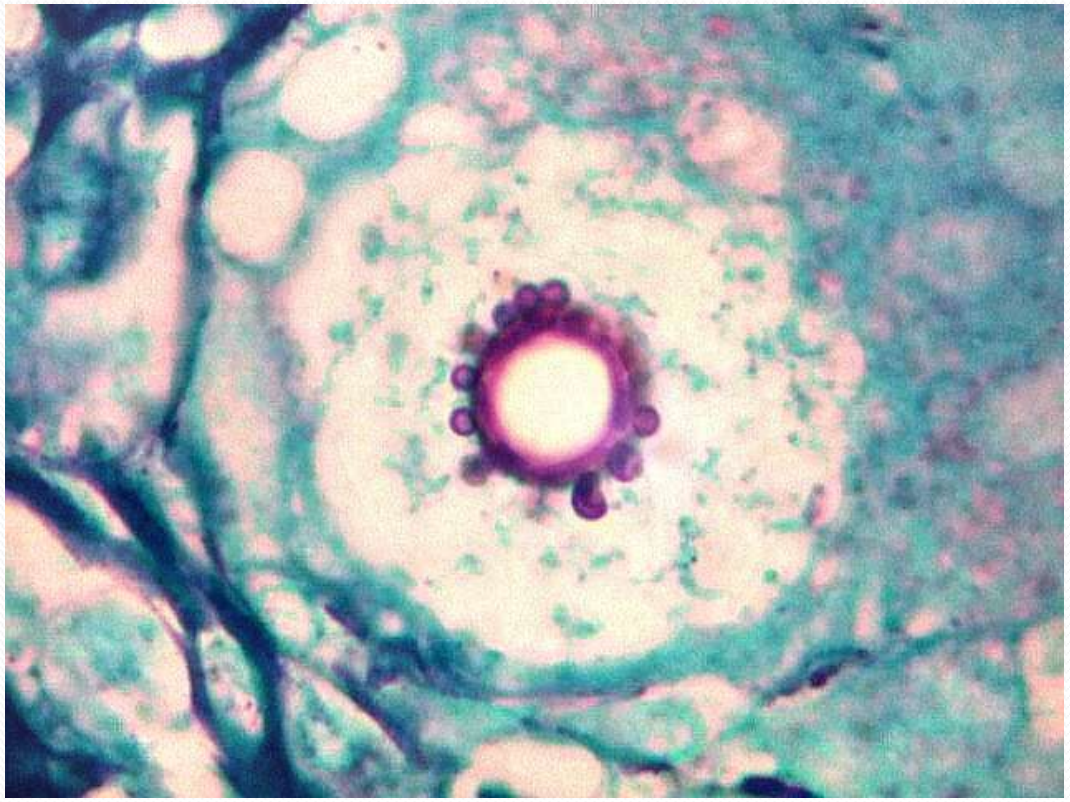
GROCOTT+VERDE LUZ(PARACOCO)



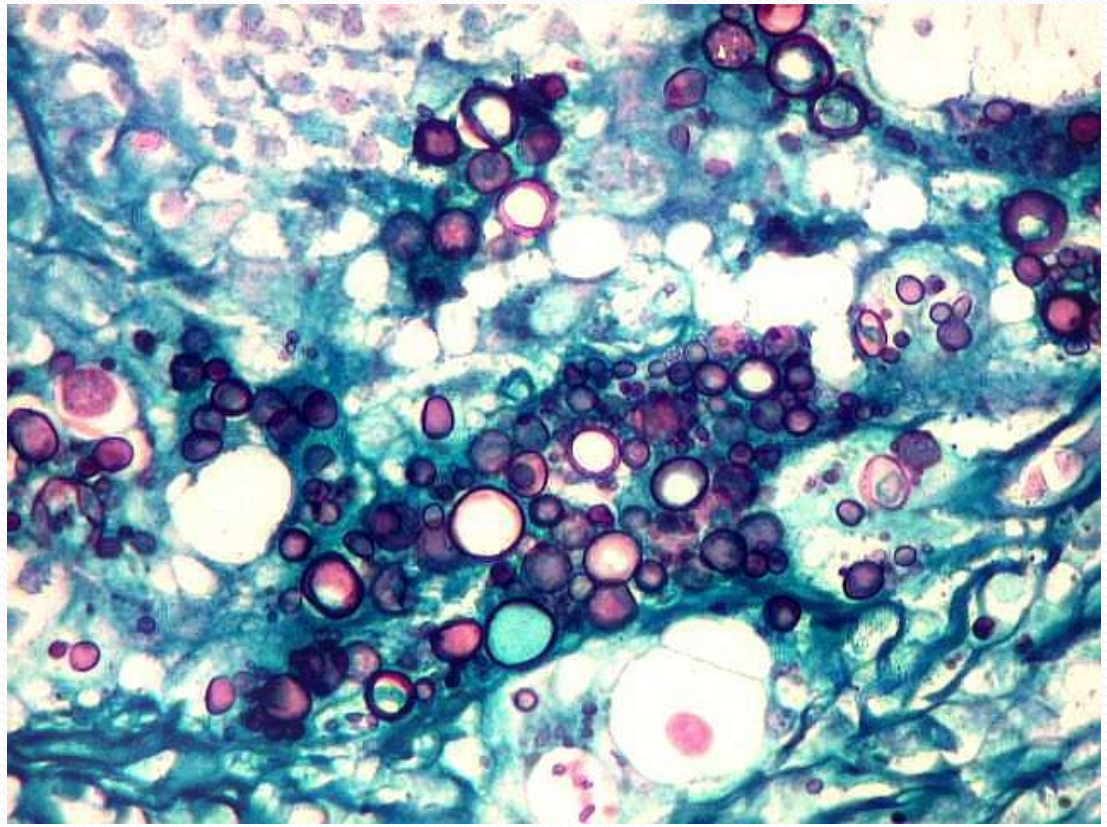


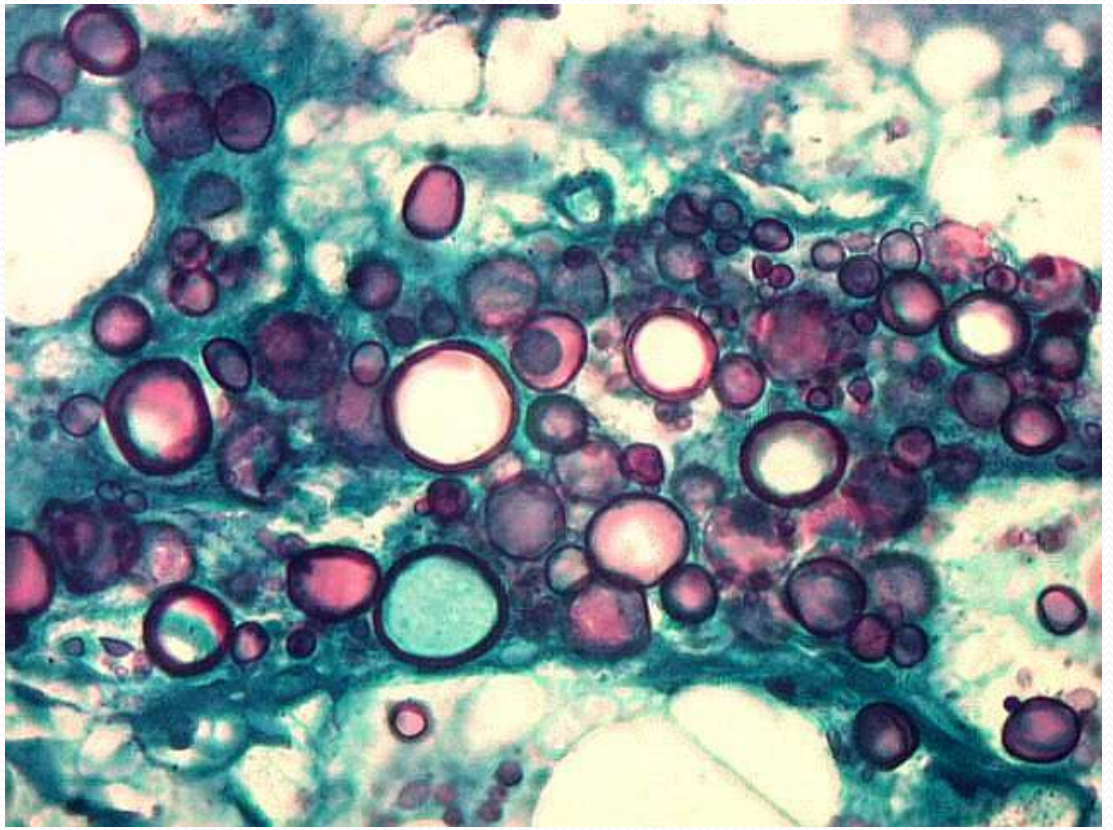
GROCOTT+VERDE LUZ(PARACOCO)



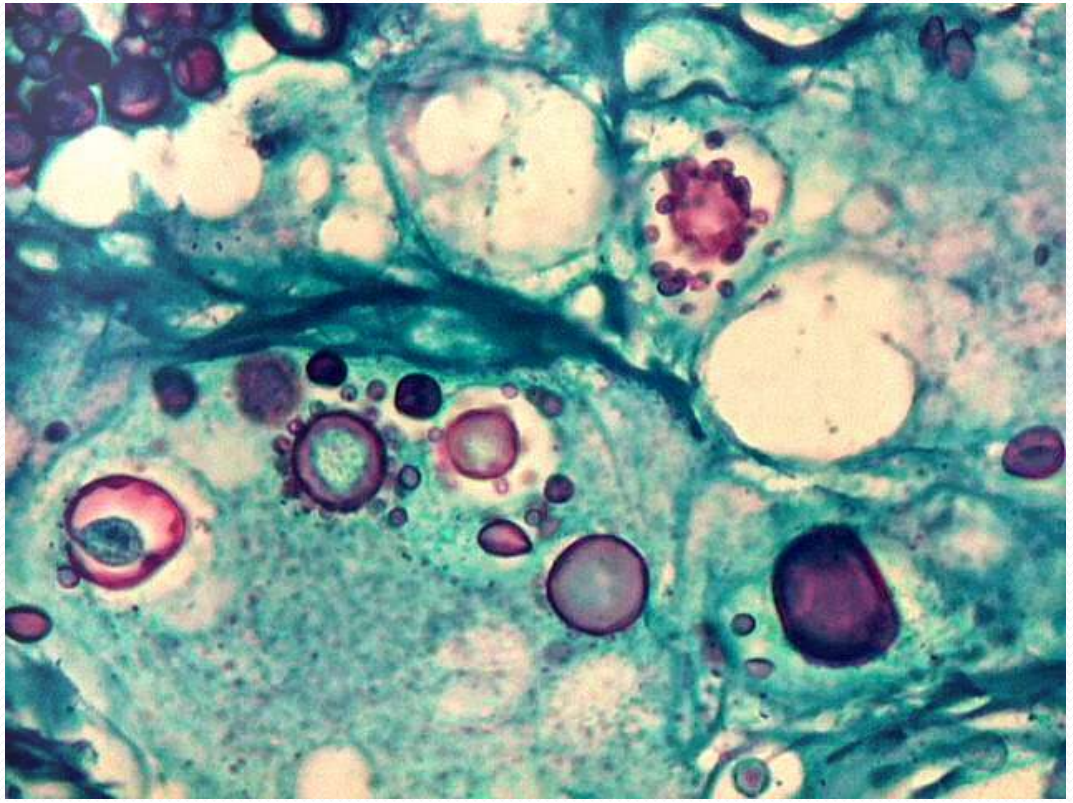


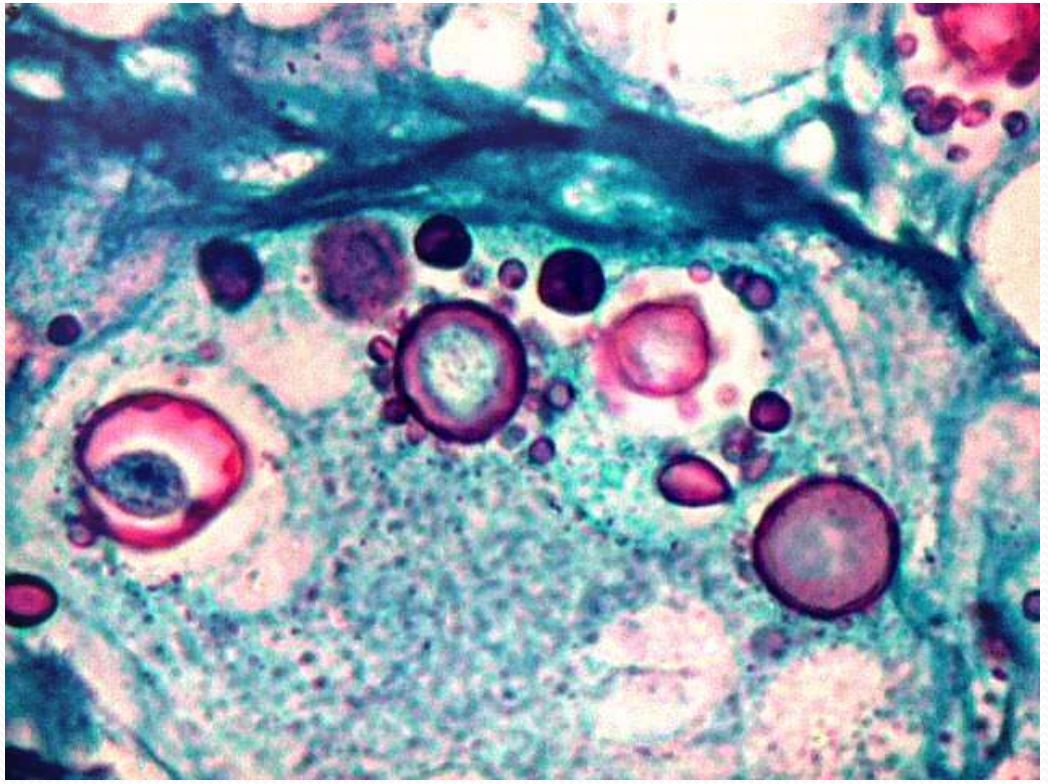
GROCOTT+VERDE LUZ(PARACOCO)



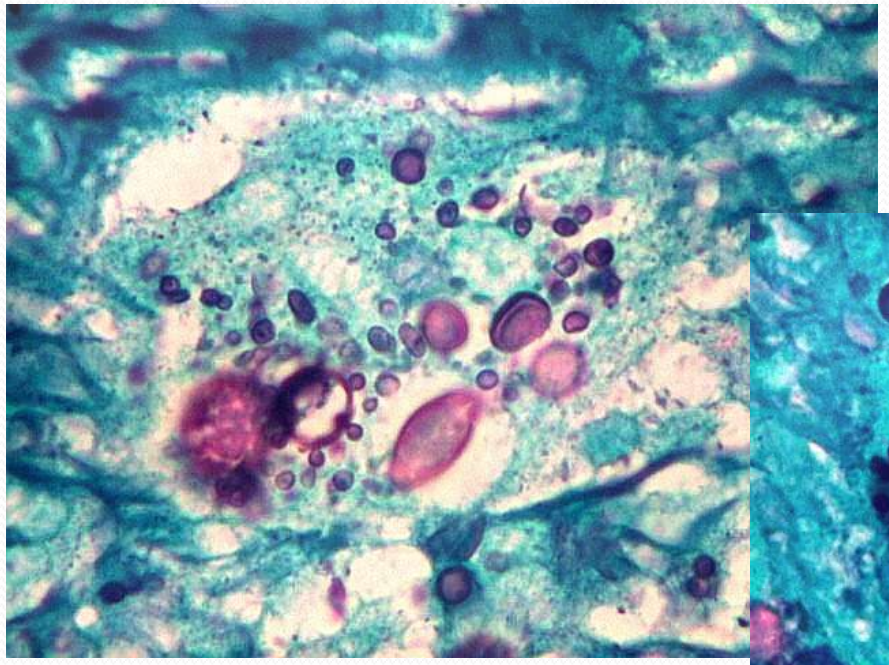


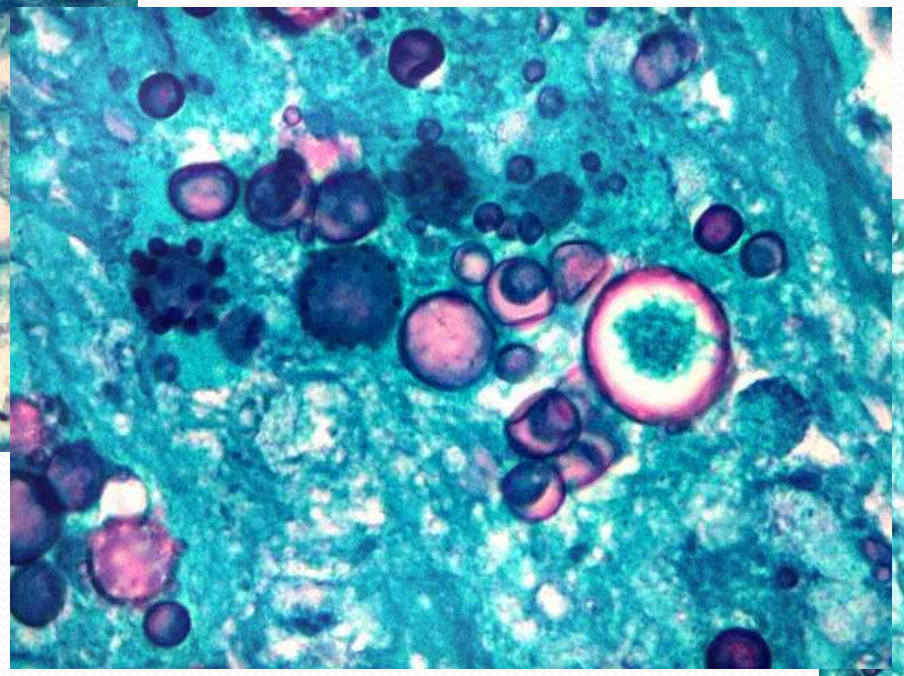
GROCOTT+VERDE LUZ(PARACOCO)

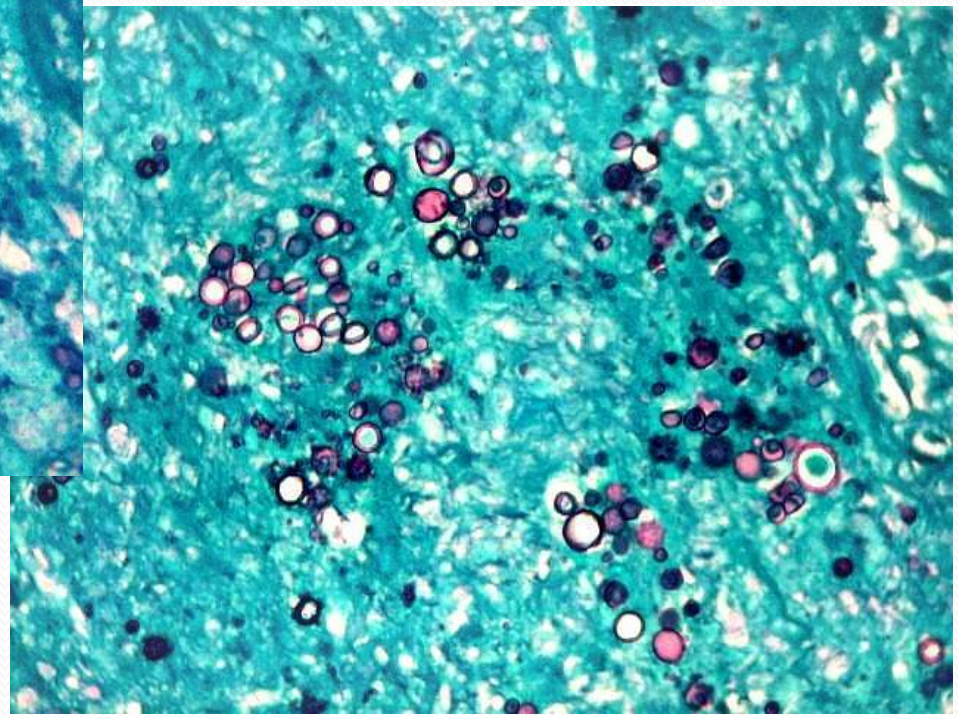




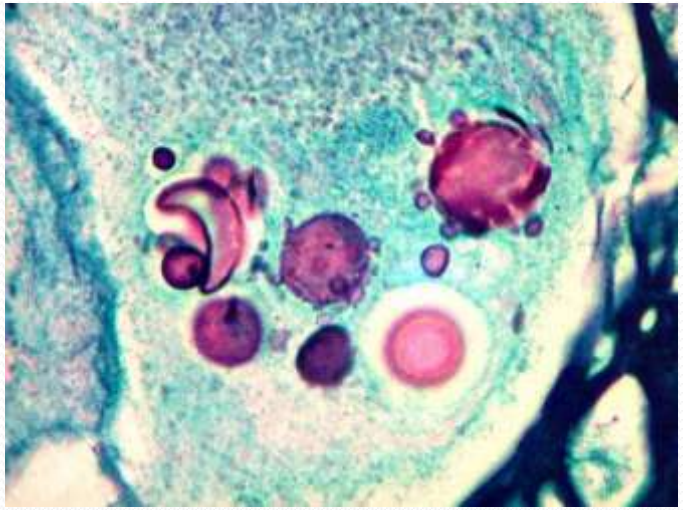
GROCOTT+VERDE LUZ(PARACOCO)

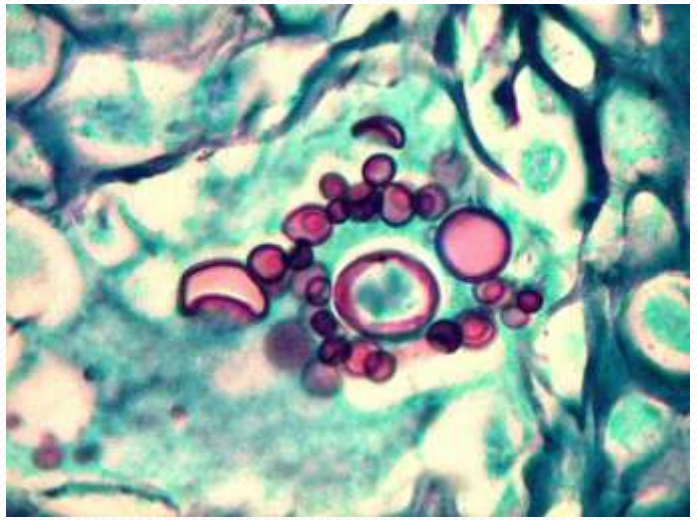


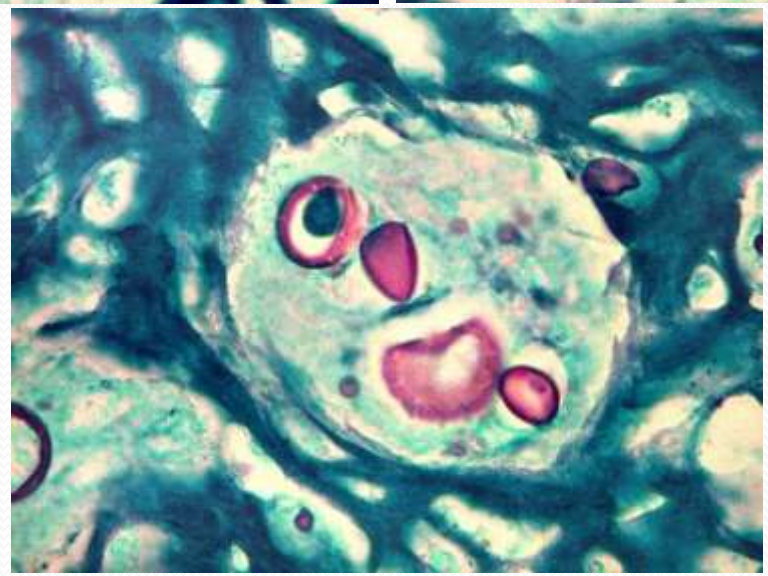




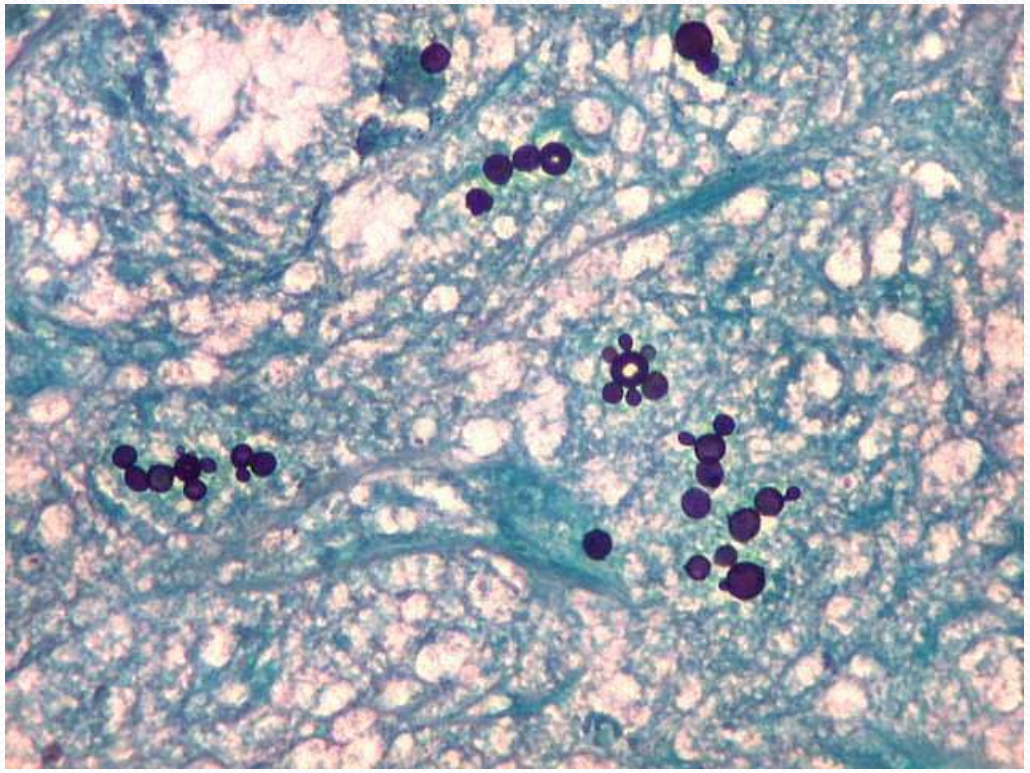
GROCOTT+VERDE LUZ(PARACOCO)

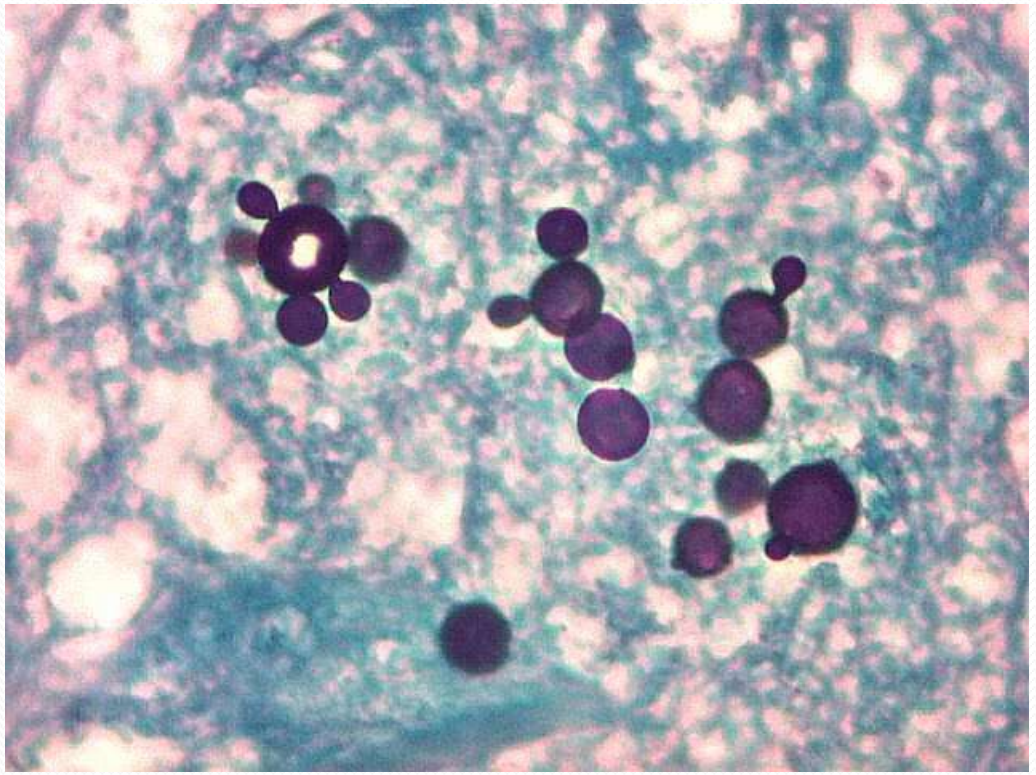




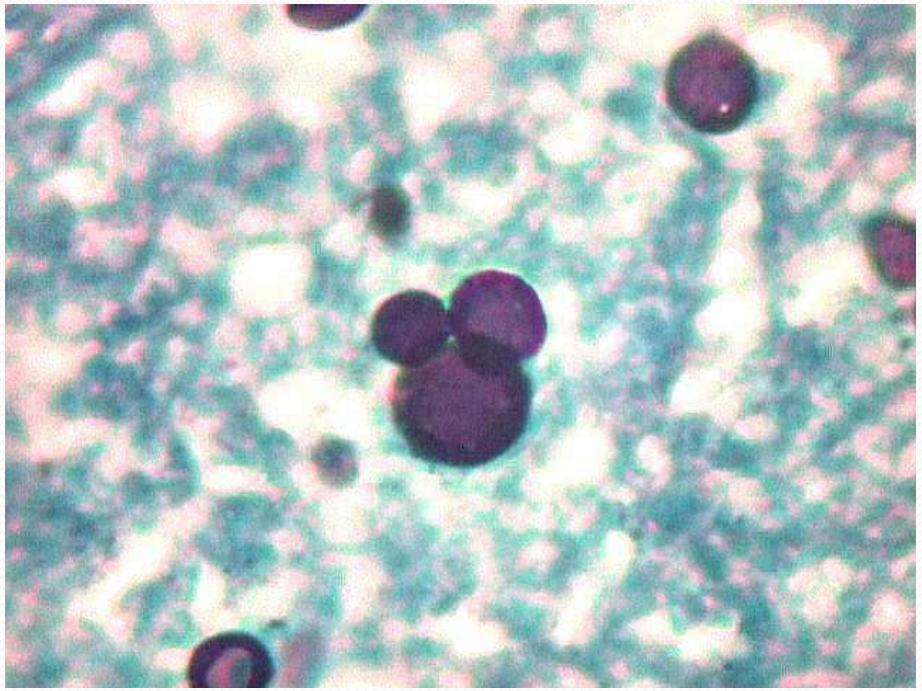


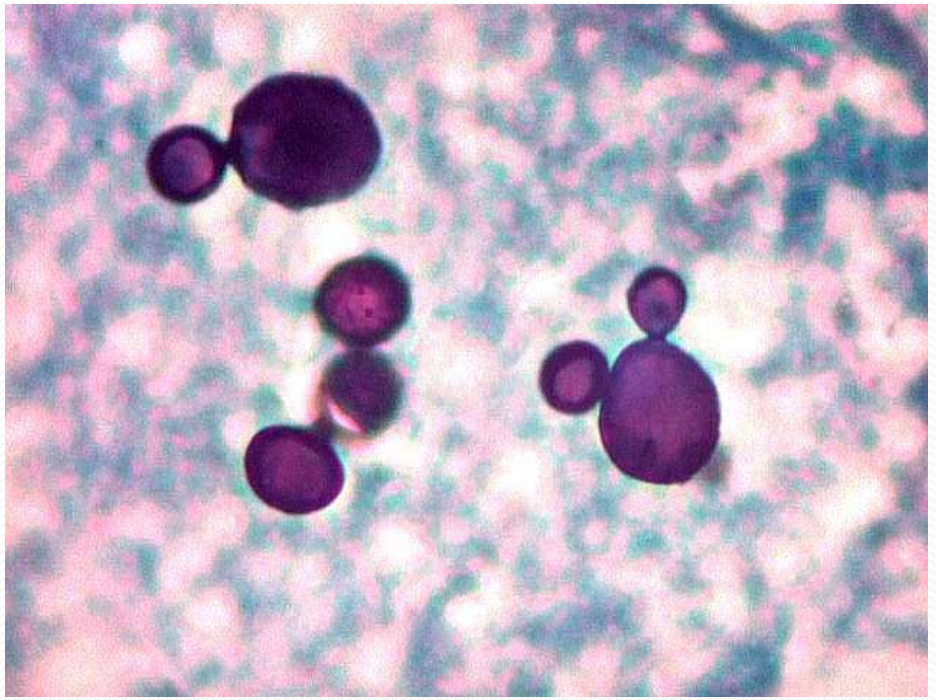
GROCOTT+VERDE LUZ(PARACOCO)



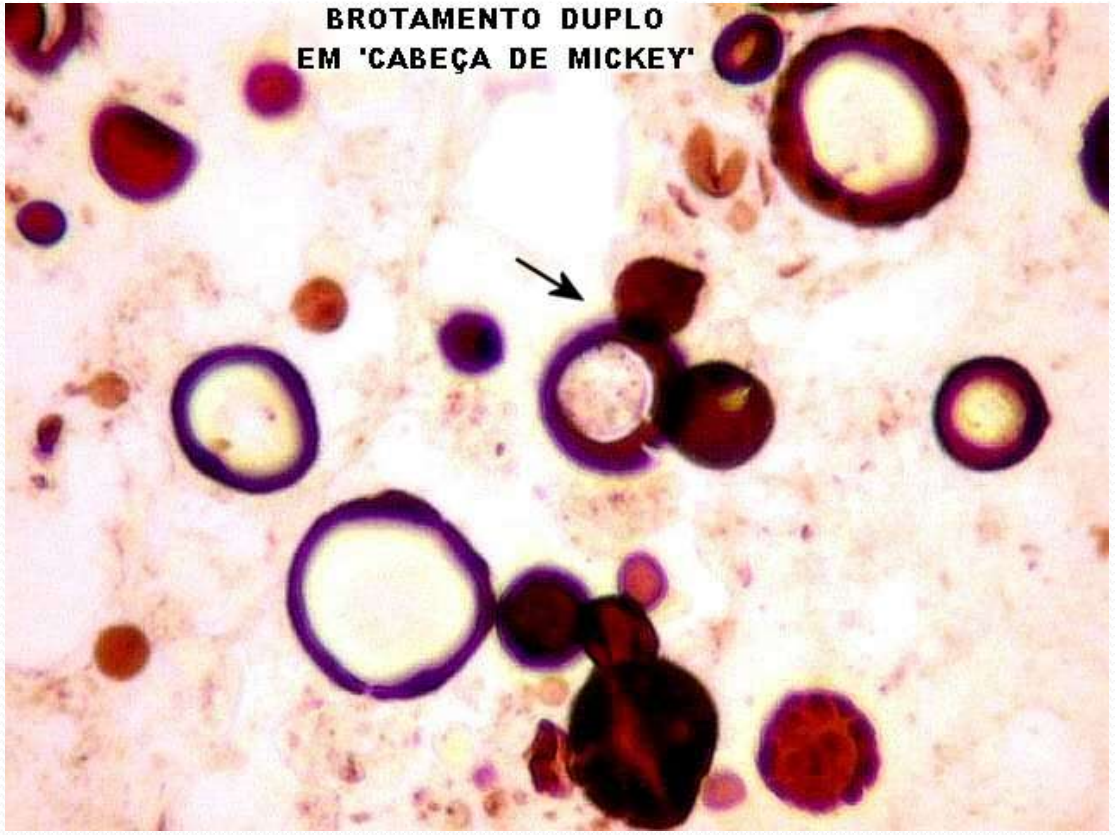


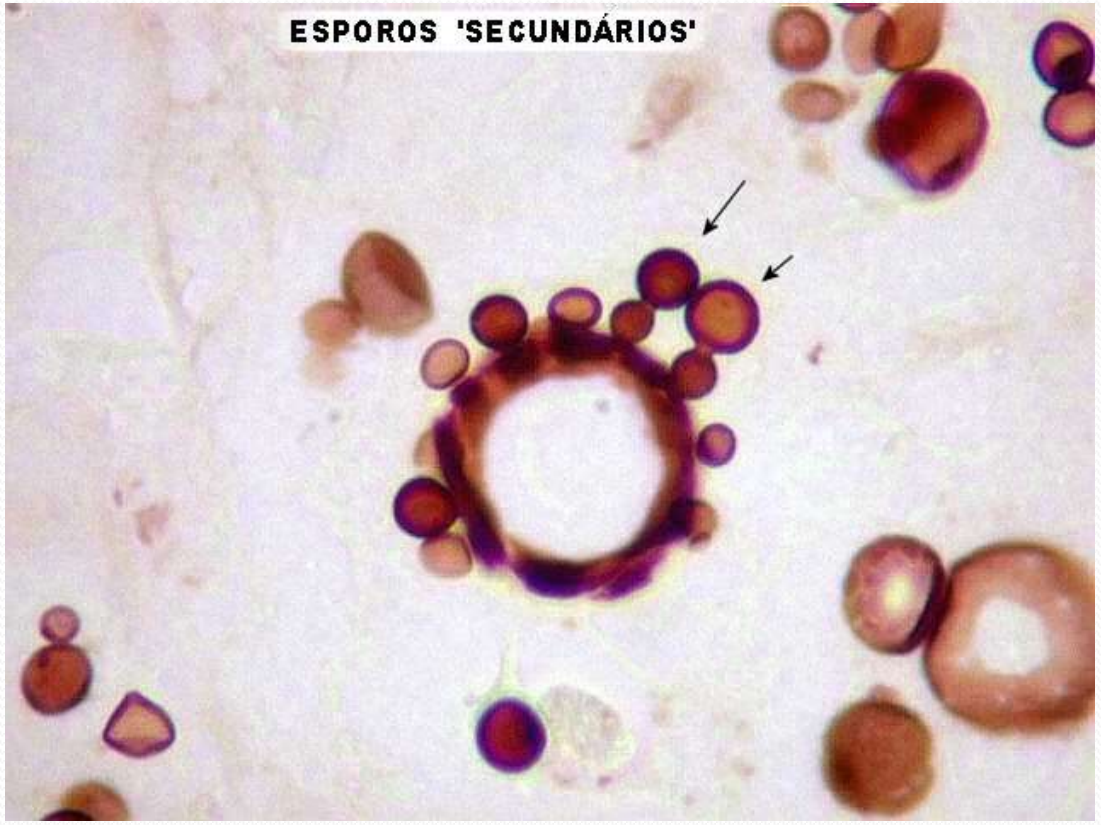
GROCOTT+VERDE LUZ(PARACOCO)





GROCOTT SEM COLORAÇÃO DE FUNDO





BAAR - BACILO ÁLCOOL ÁCIDO RESISTENTE

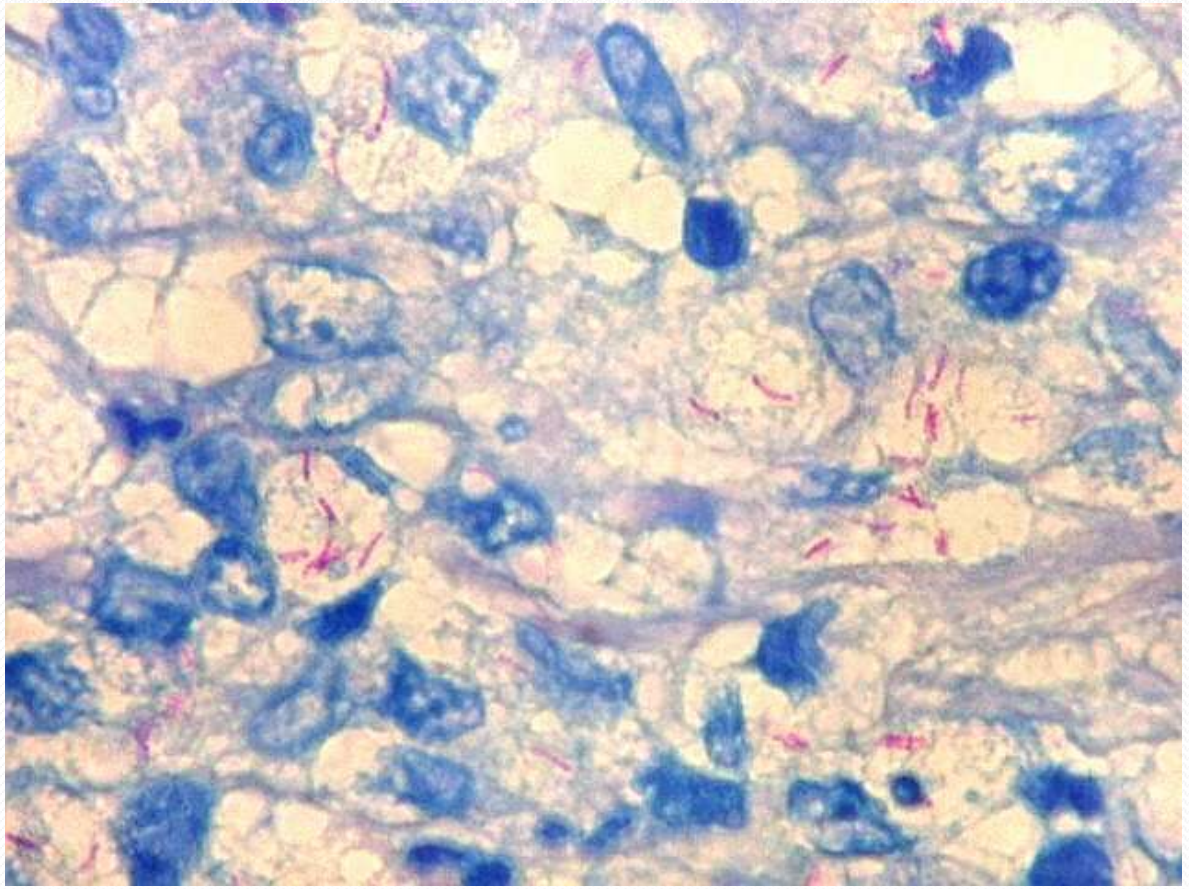
Resistência ácida- É uma característica de micobactérias, devido a composição das paredes das células de micobactérias ricas em lipídeos.

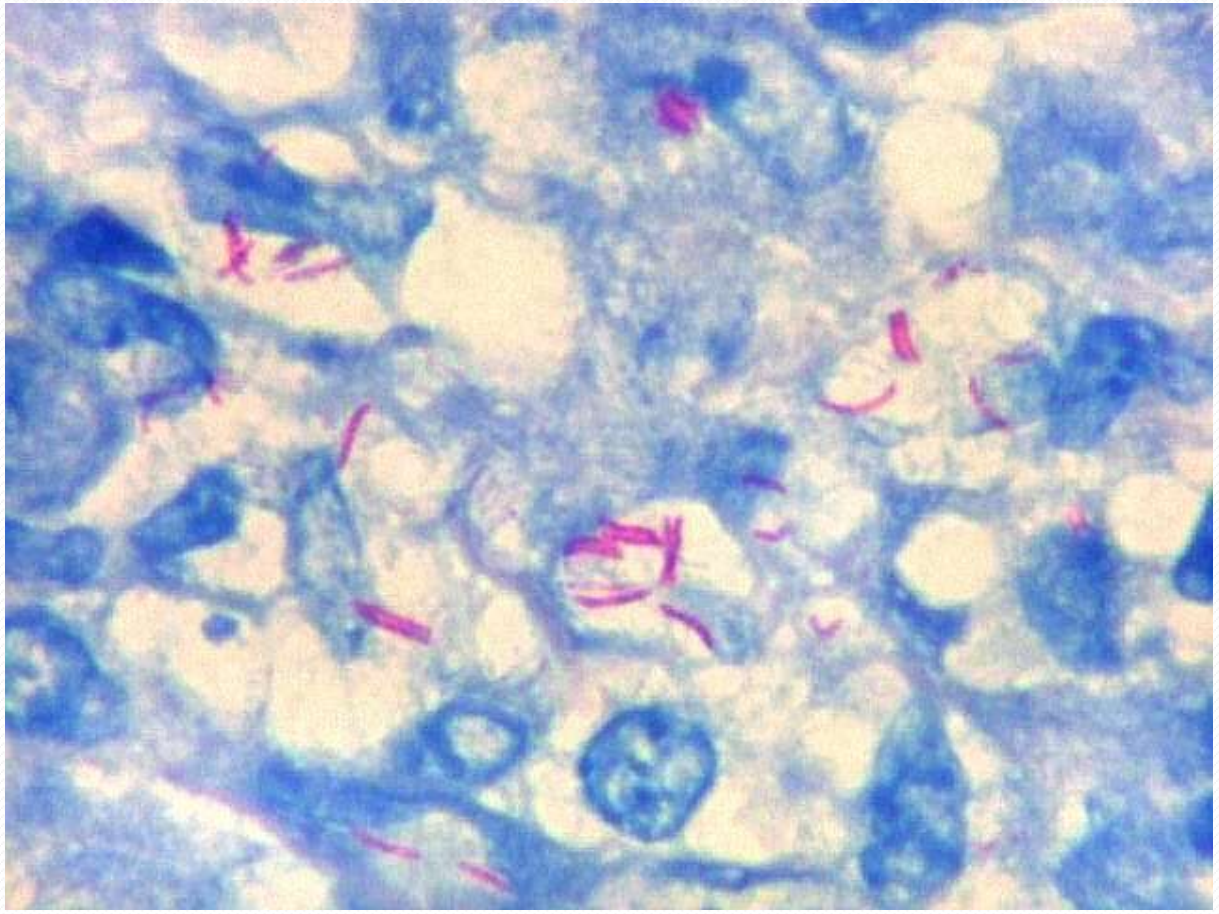
Bactérias patogênicas:

Bacilo de Koch – causador da tuberculose.

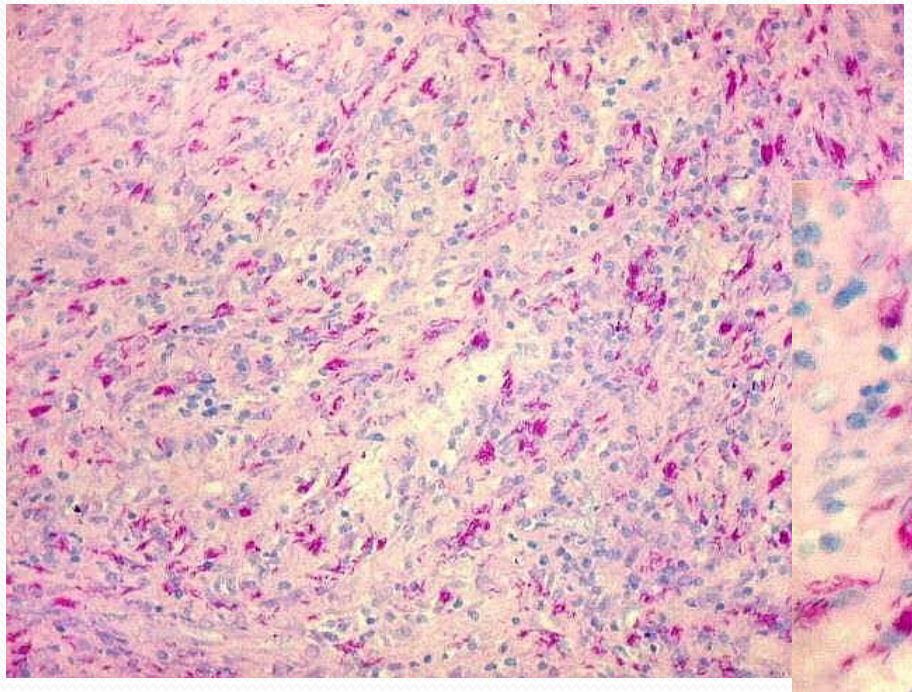
Bacilo de Hansen- causador da hanseníase ou lepra.

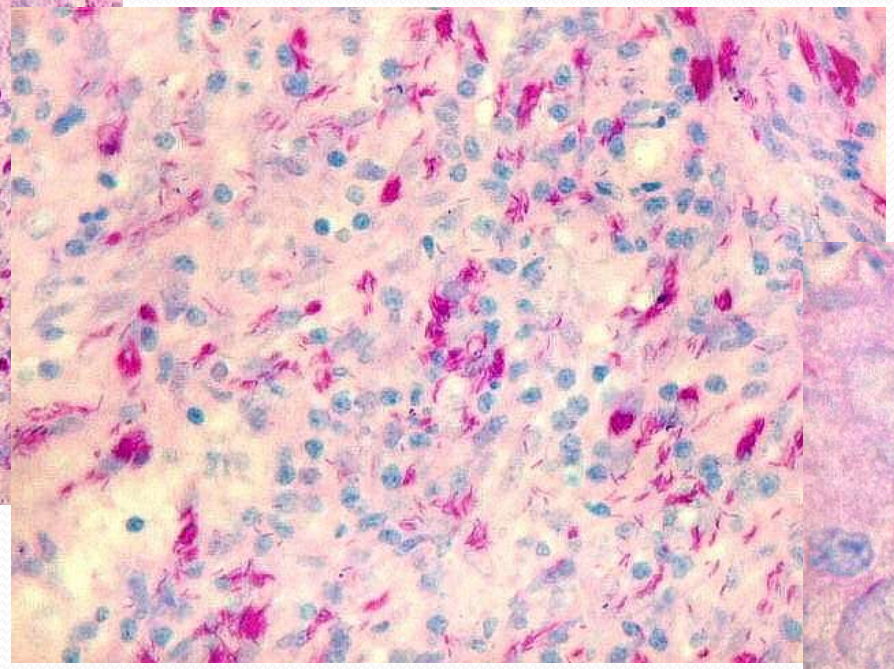
BACILOS DE KOCK

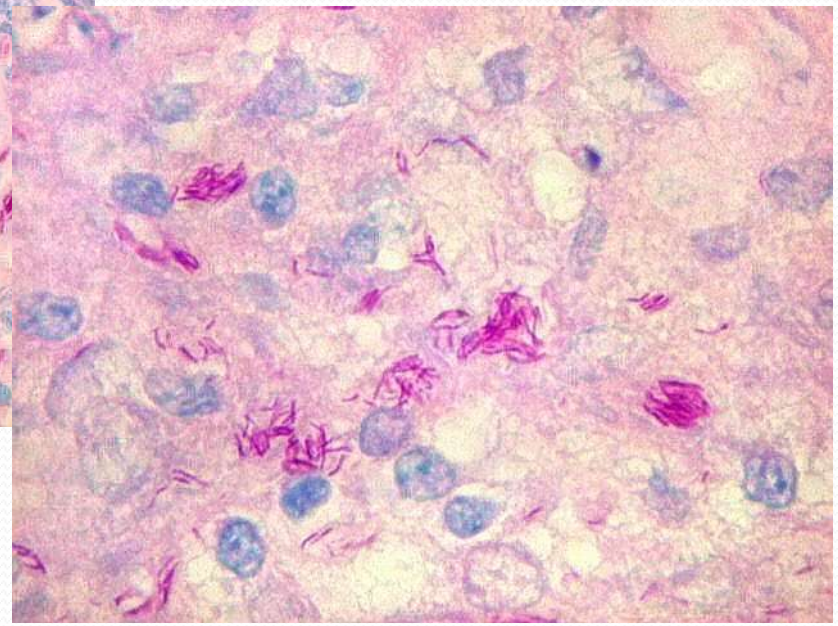




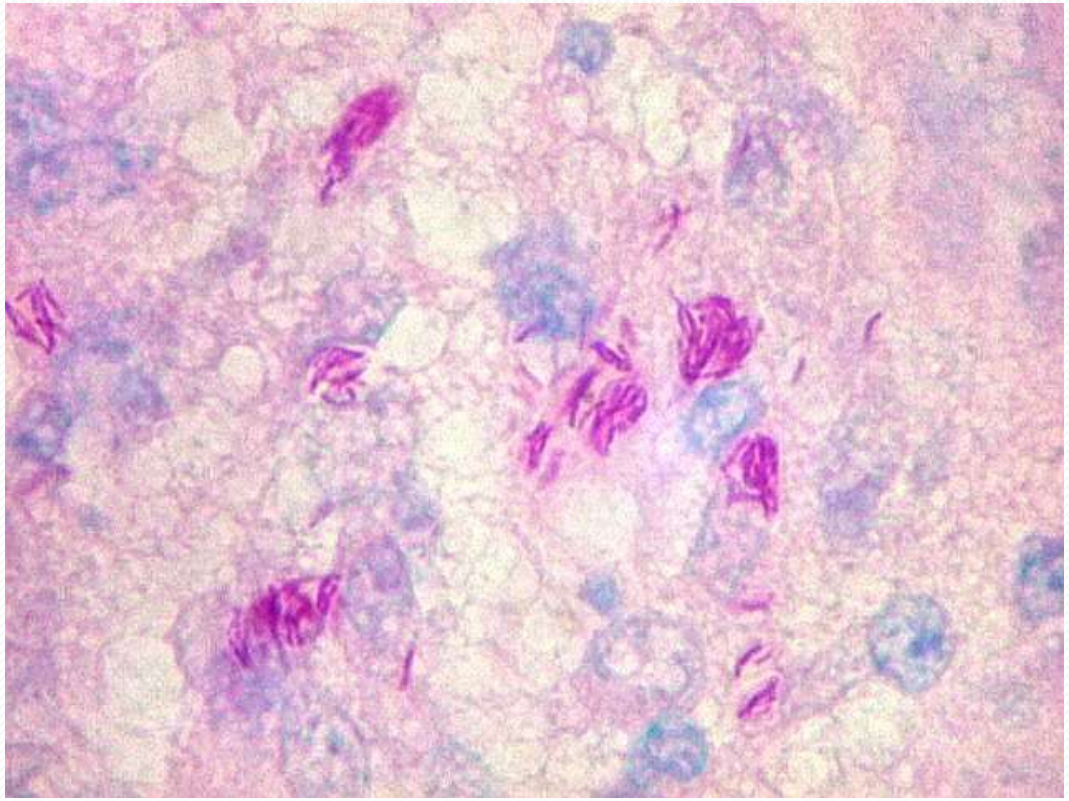
BACILOS DE HANSEN

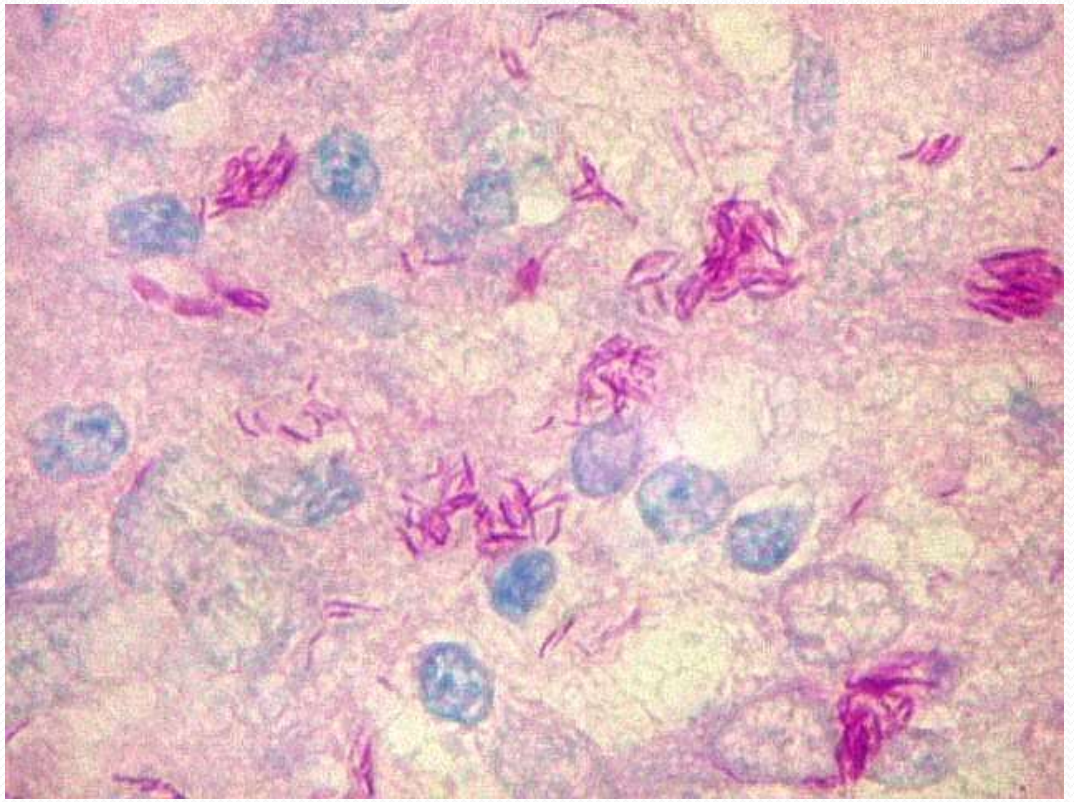




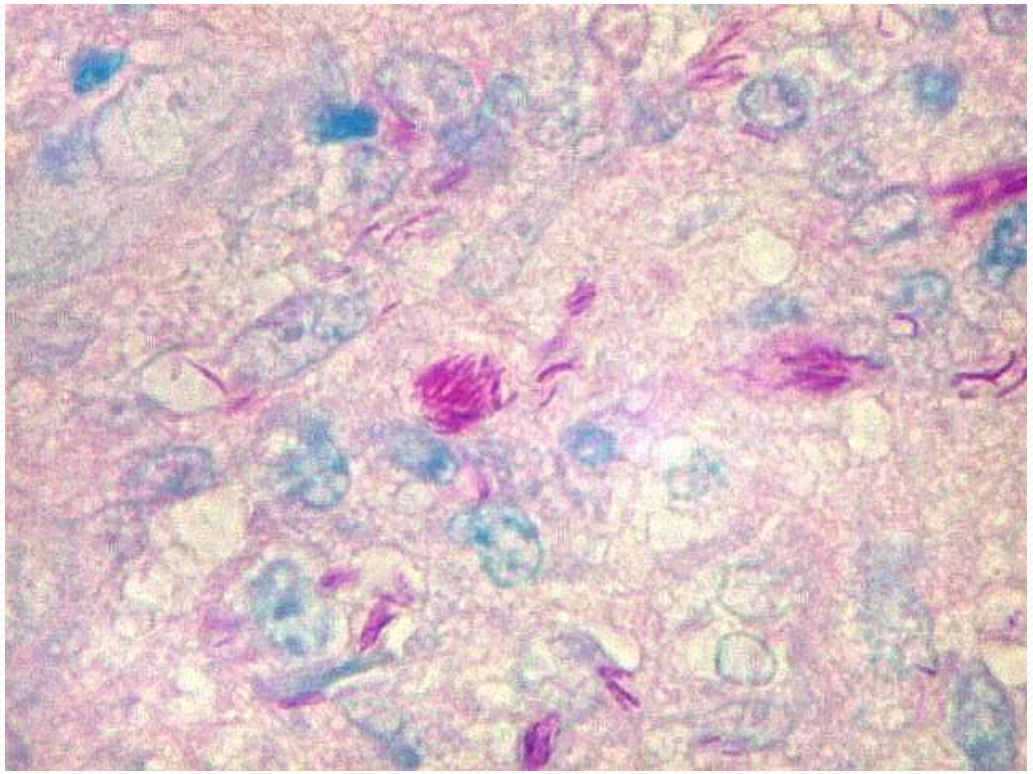


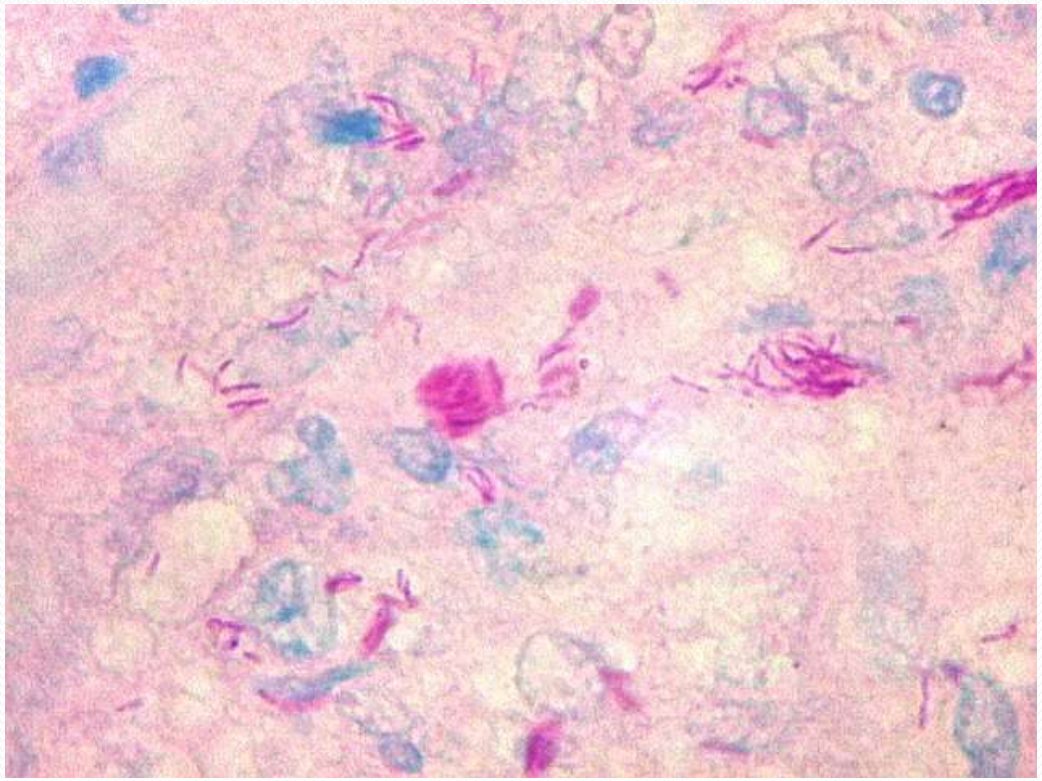
BACILOS DE HANSEN



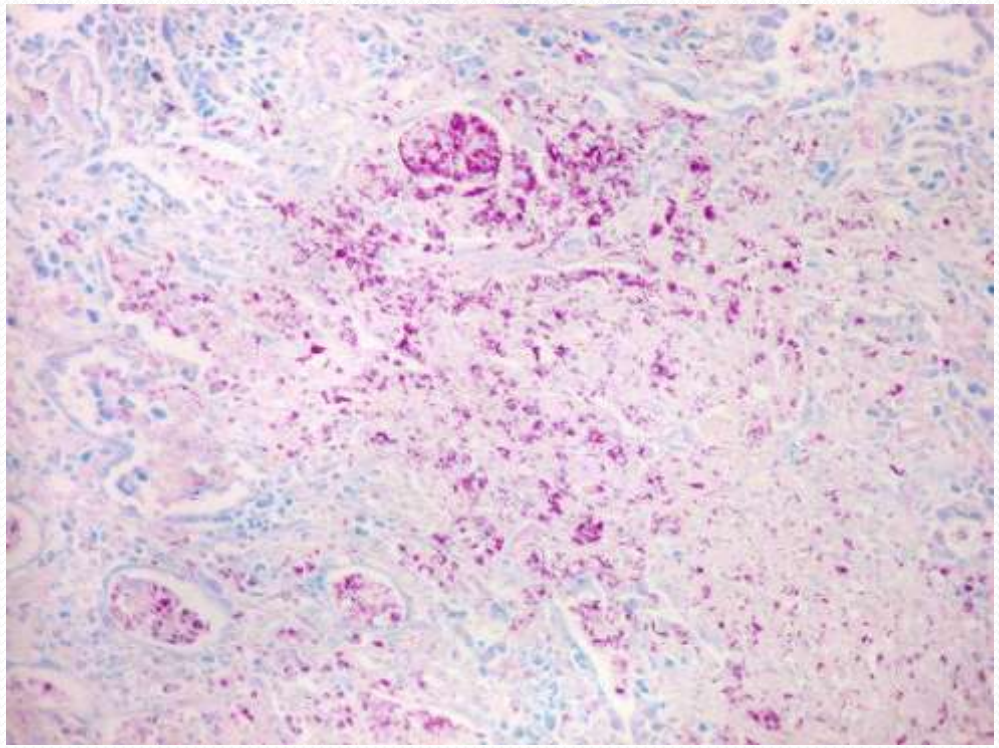


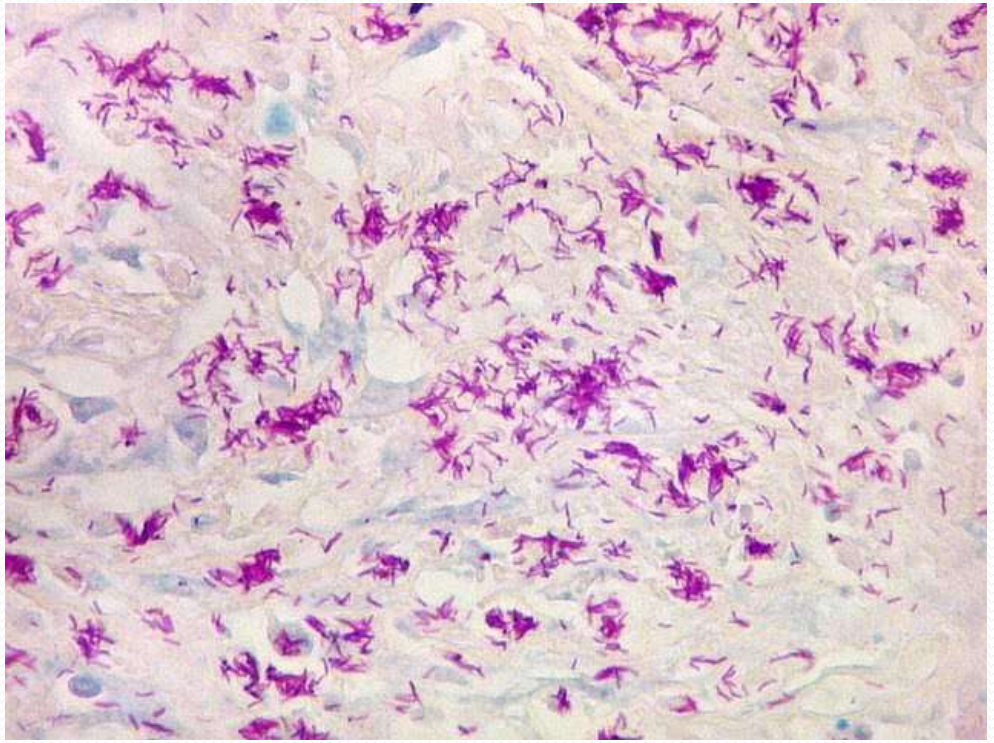
BACILOS DE HANSEN



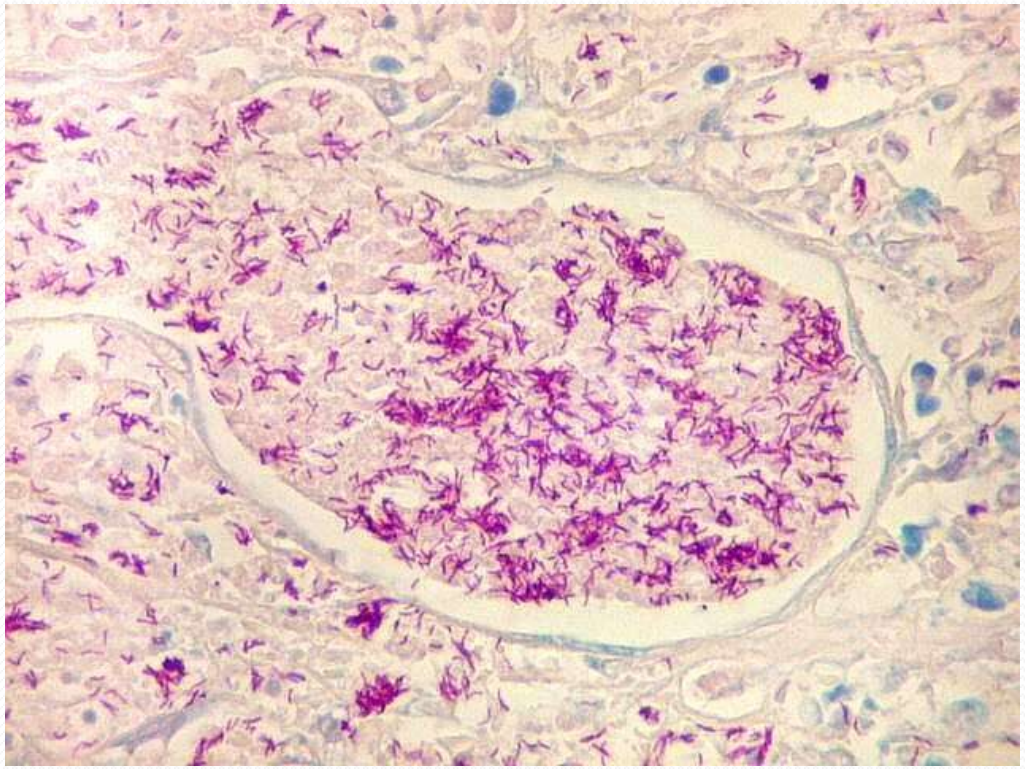


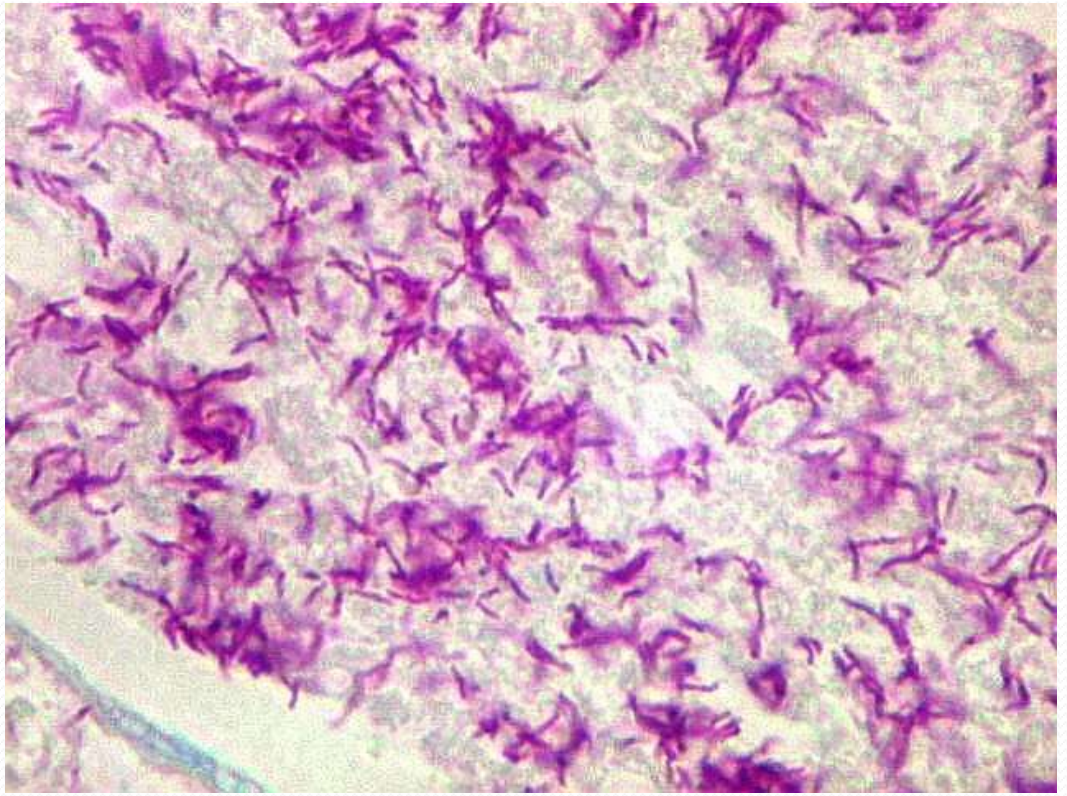
ZIEHL NEELSEN (MICOBACTERIOSE)



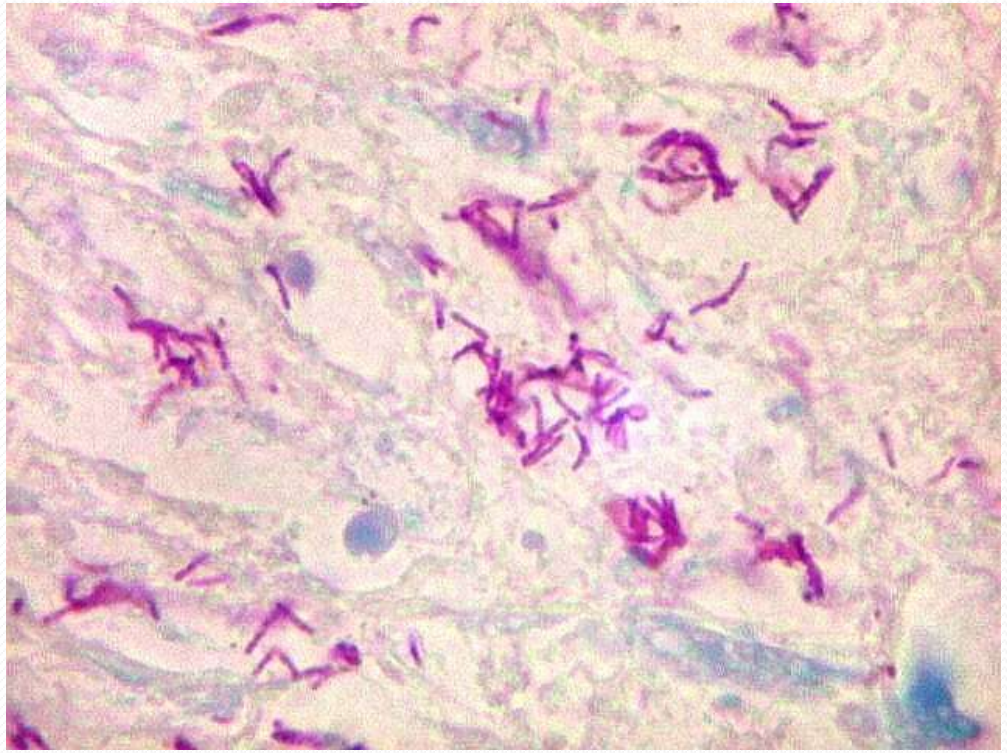


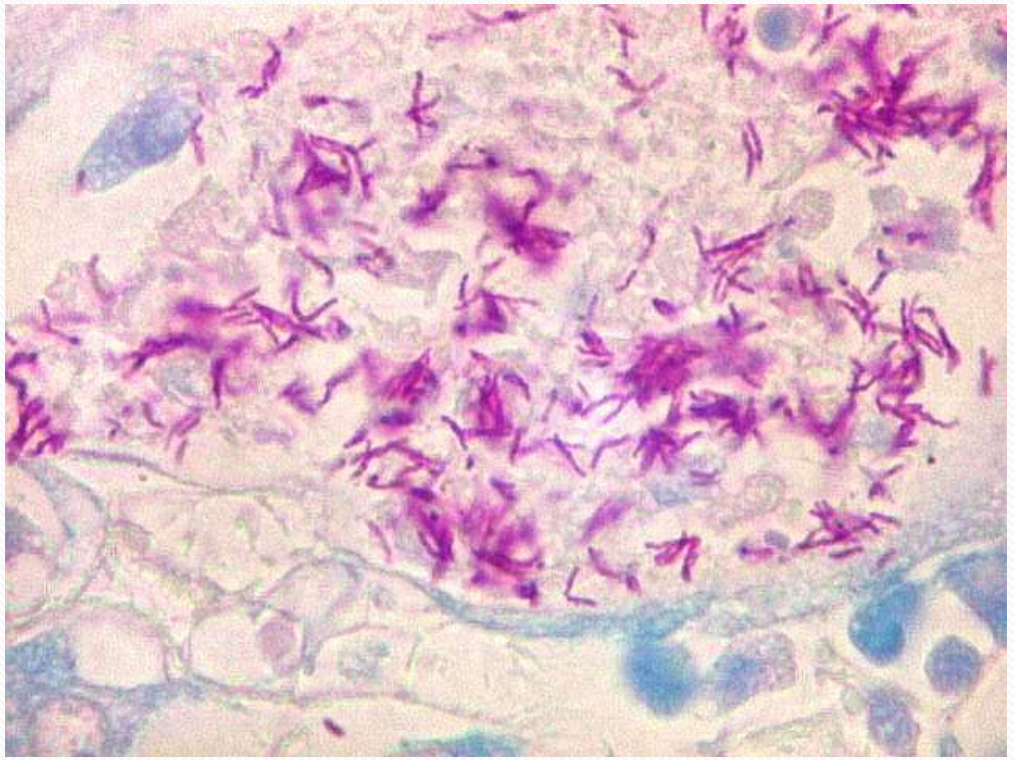
ZIEHL NEELSEN (MICOBACTERIOSE)



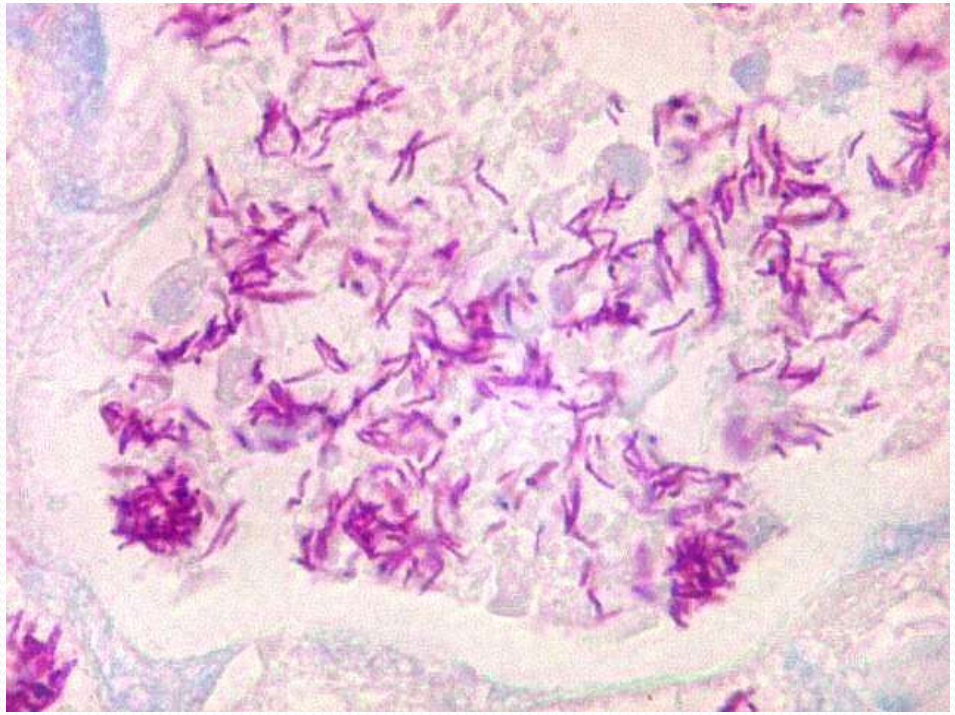


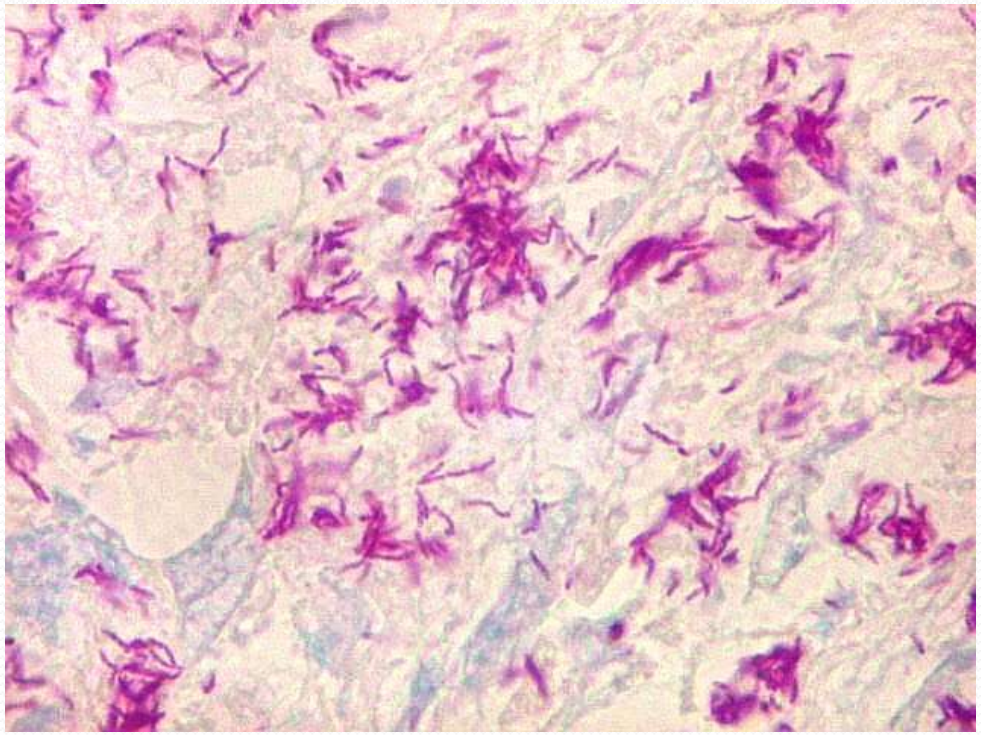
ZIEHL NEELSEN (MICOBACTERIOSE)





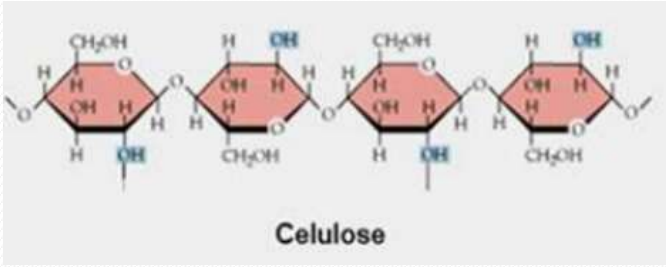
ZIEHL NEELSEN (MICOBACTERIOSE)





MUCOPOLISSACARÍDEOS

São longas cadeias de moléculas de açúcares usadas na construção dos ossos, cartilagens, pele e tendões.



O fluído que lubrifica as suas articulações contém mucopolissacarídeos.

Todos os tecidos tem um pouco desta substância como parte normal de sua estrutura.

ENZIMAS: proteínas especiais responsáveis pelas reações que ocorrem em nosso corpo.

MÉTODO DE FERRO - COLOIDAL DE MOWRY

1-SOLUÇÃO ESTOQUE DE CLORETO FÉRRICO 29%

- Água destilada ..... 100 mL
- Cloreto férrico ..... 29 g

2-SOLUÇÃO MATRIZ DE FERRO COLOIDAL DE MULLER

- Água destilada ..... 250 mL

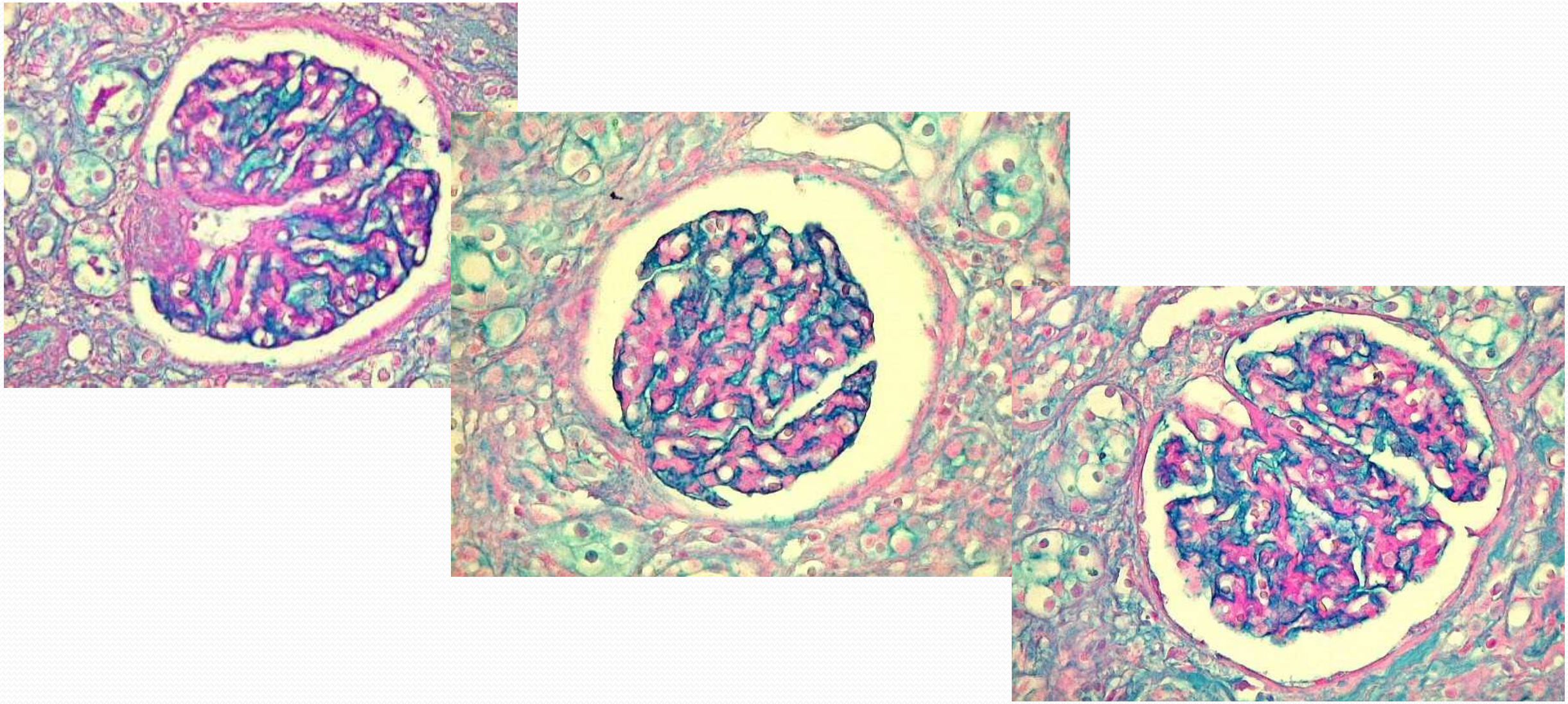
***Ferver até ebulição**

- Adicionar cloreto férrico 29% ..... 4 mL

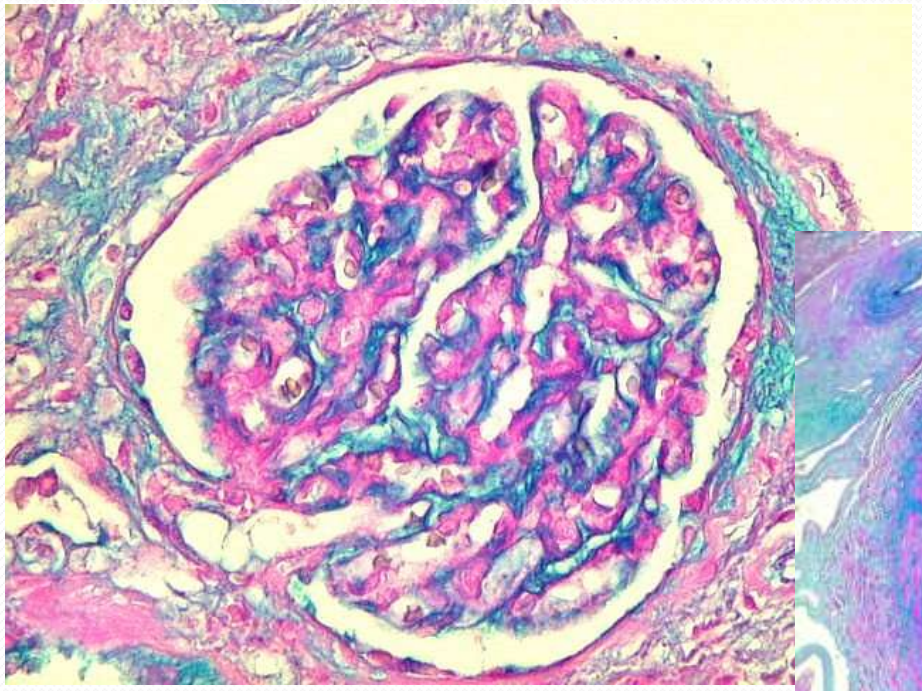
3- SOLUÇÃO USO DIÁRIO DE FERRO COLOIDAL DE MULLER

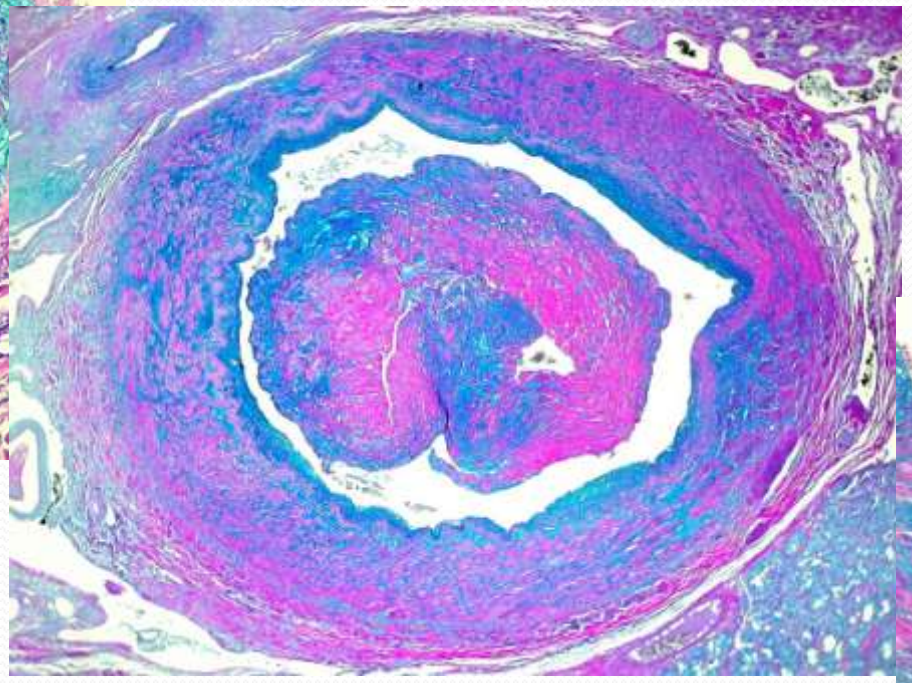
- Solução matriz de ferro coloidal de Muller ..... 20 mL
- Água destilada ..... 15 mL
- Ácido acético glacial ..... 5 mL

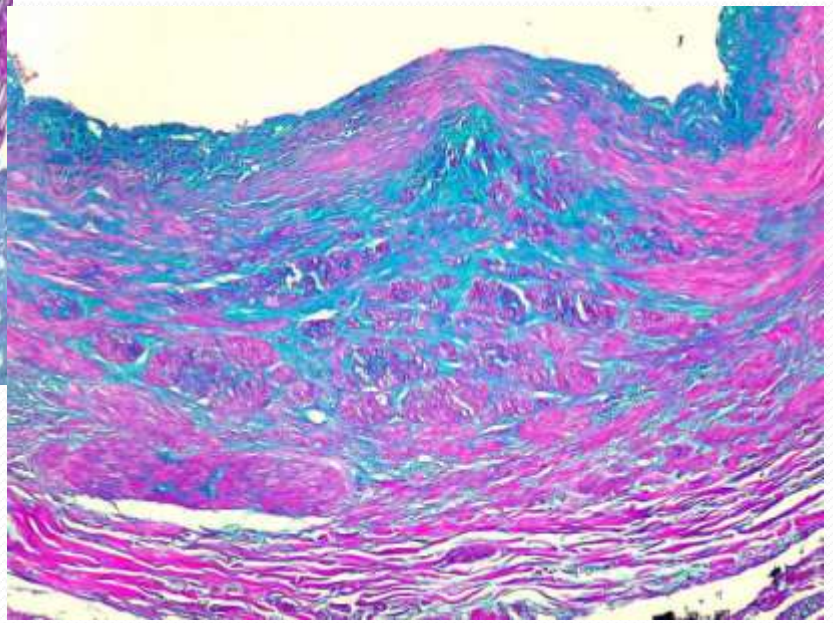
FERRO COLOIDAL



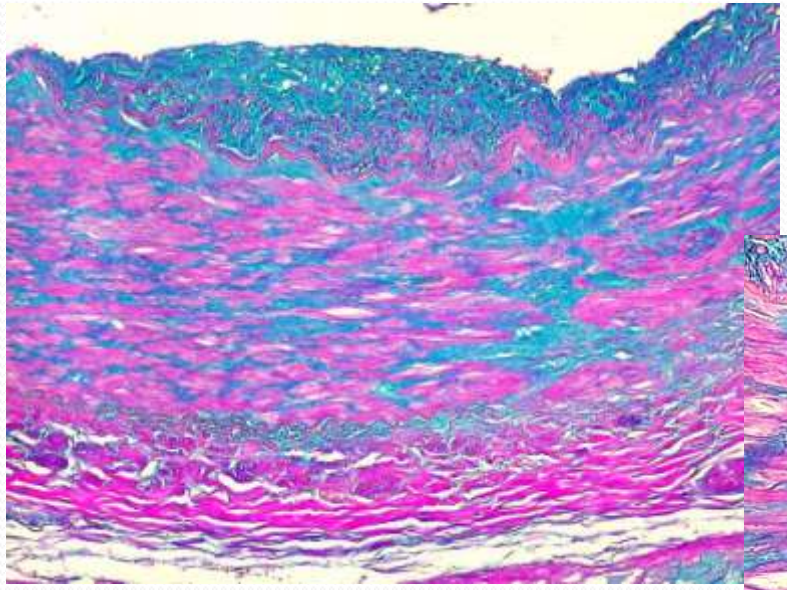
FERRO COLOIDAL

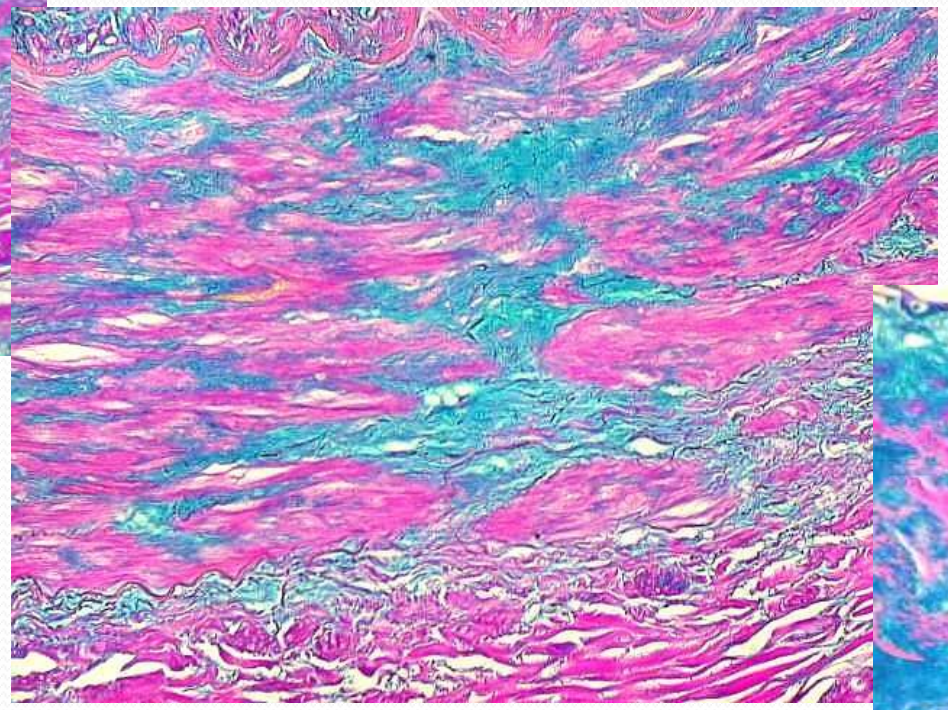


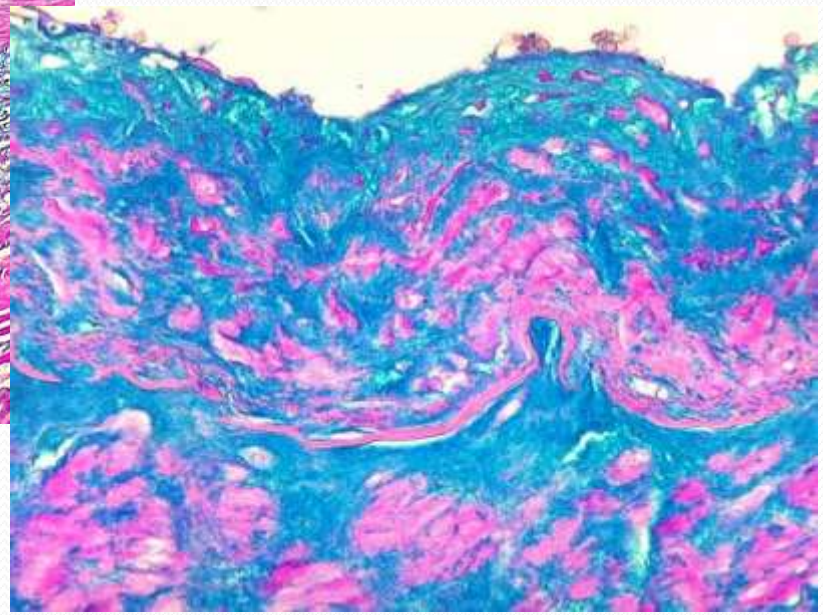




FERRO COLOIDAL







BIBLIOGRAFIA

- Técnica histólogica em anatomia patológica – prof. Jorge Michalany;
- Métodos histológicos (Instituto de Patologia das Forças Armadas dos Estados Unidos da América (AFIP);
- Introdução as mucopolissacaridoses;
- McManus JFA, MowryRW;
- Staning methods histologic and histochemical, New York, NY Hoeber, 1960:133

AGRADECIMENTOS

- Edna Tereza Fidelix (minha esposa)
- Irineu Antônio Mantovanelli Neto – técnico de laboratório
- Isabella Domingues Guize – técnica de laboratório
- Dra. Dulcelena Ledo de Oliveira- patologista do laboratório
- Dr. Luciano de Souza Queiroz – patologista Unicamp (Imagens)