

Zpracování materiálu pro mikroskopické vyšetření

Jaroslava Dušková
Ústav patologie 1.LF UK, Praha

Tkáňové vzorky

Fixace & zalití do parafinu

Krájení

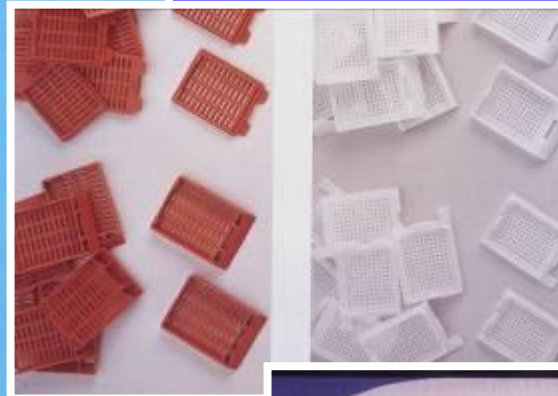
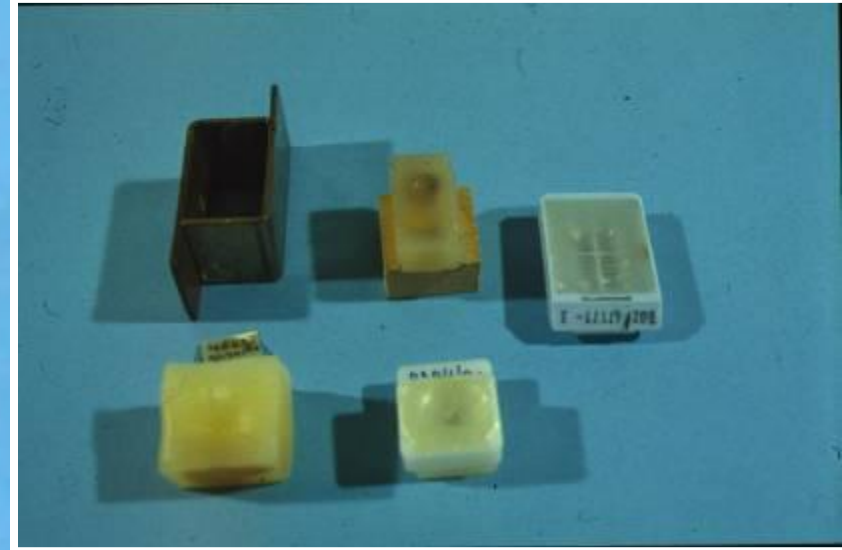
Barvení

Montování preparátu



40 mm

B 6424/2004
ÚP I.LF UK a VFN, Praha





Cytologické vzorky

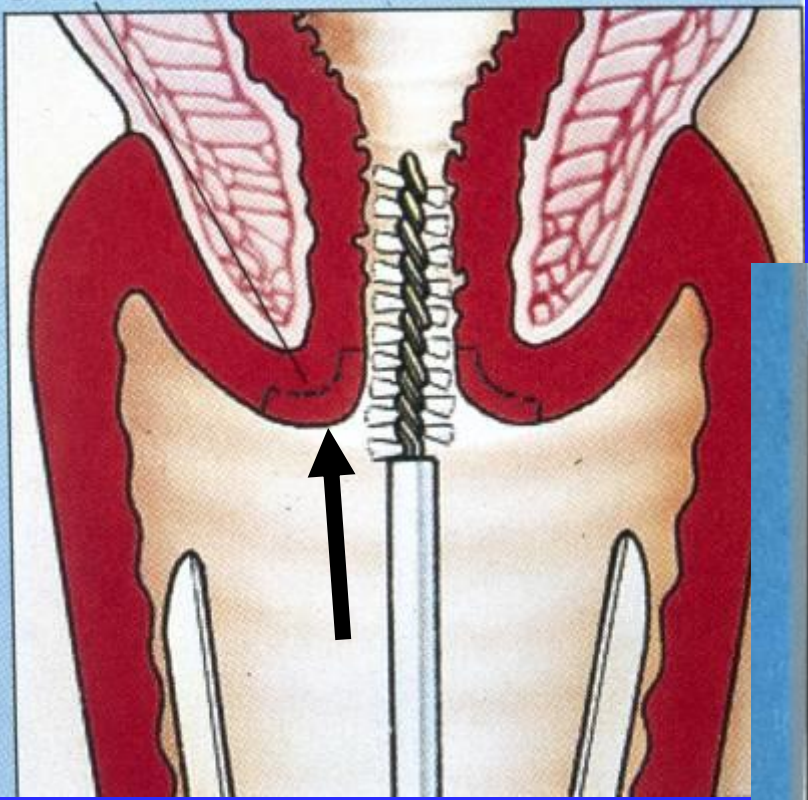
Nátěry, cytocentrifugace

Fixace (formalin, glutaraldehyd,
vyschnutí, mražení)

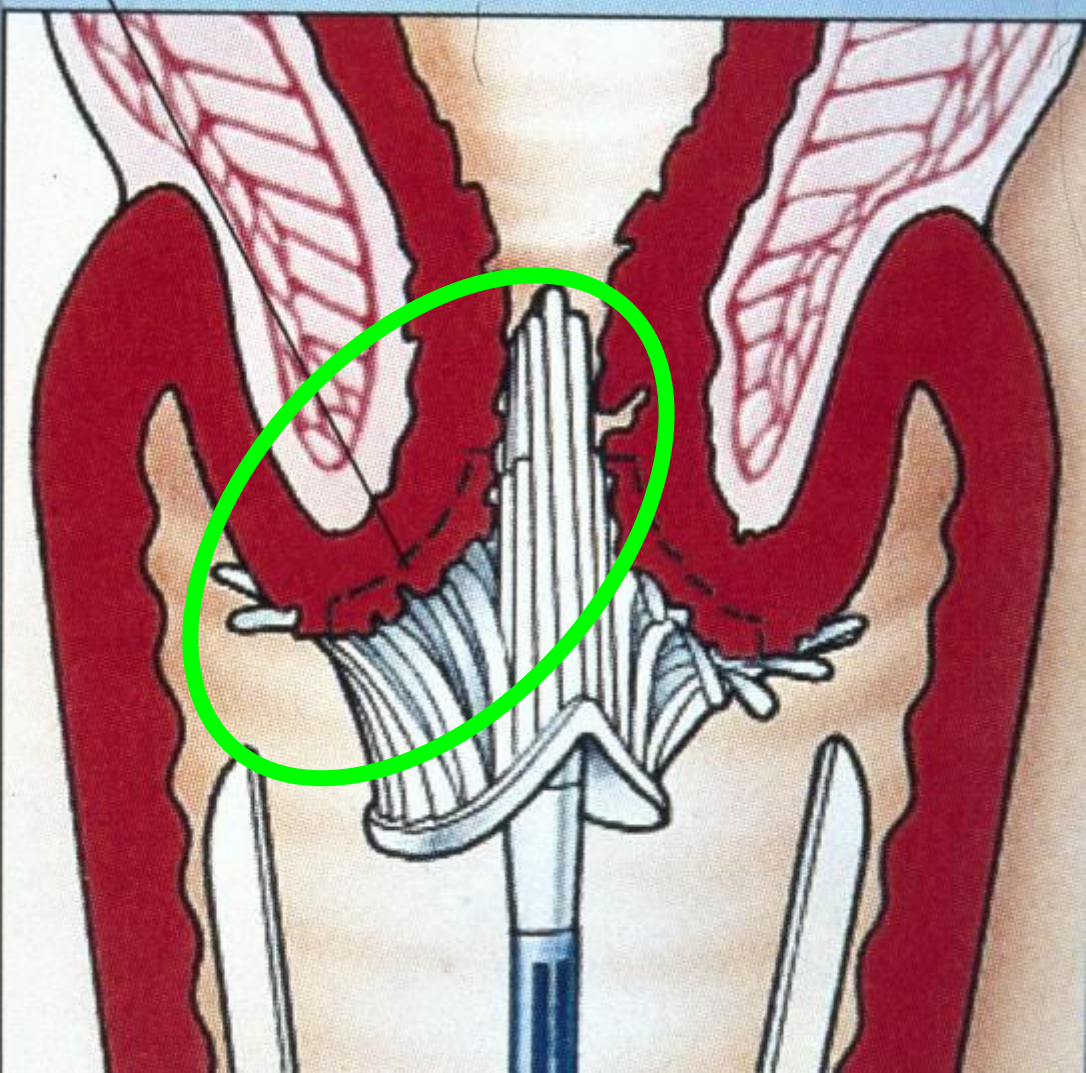
Barvení

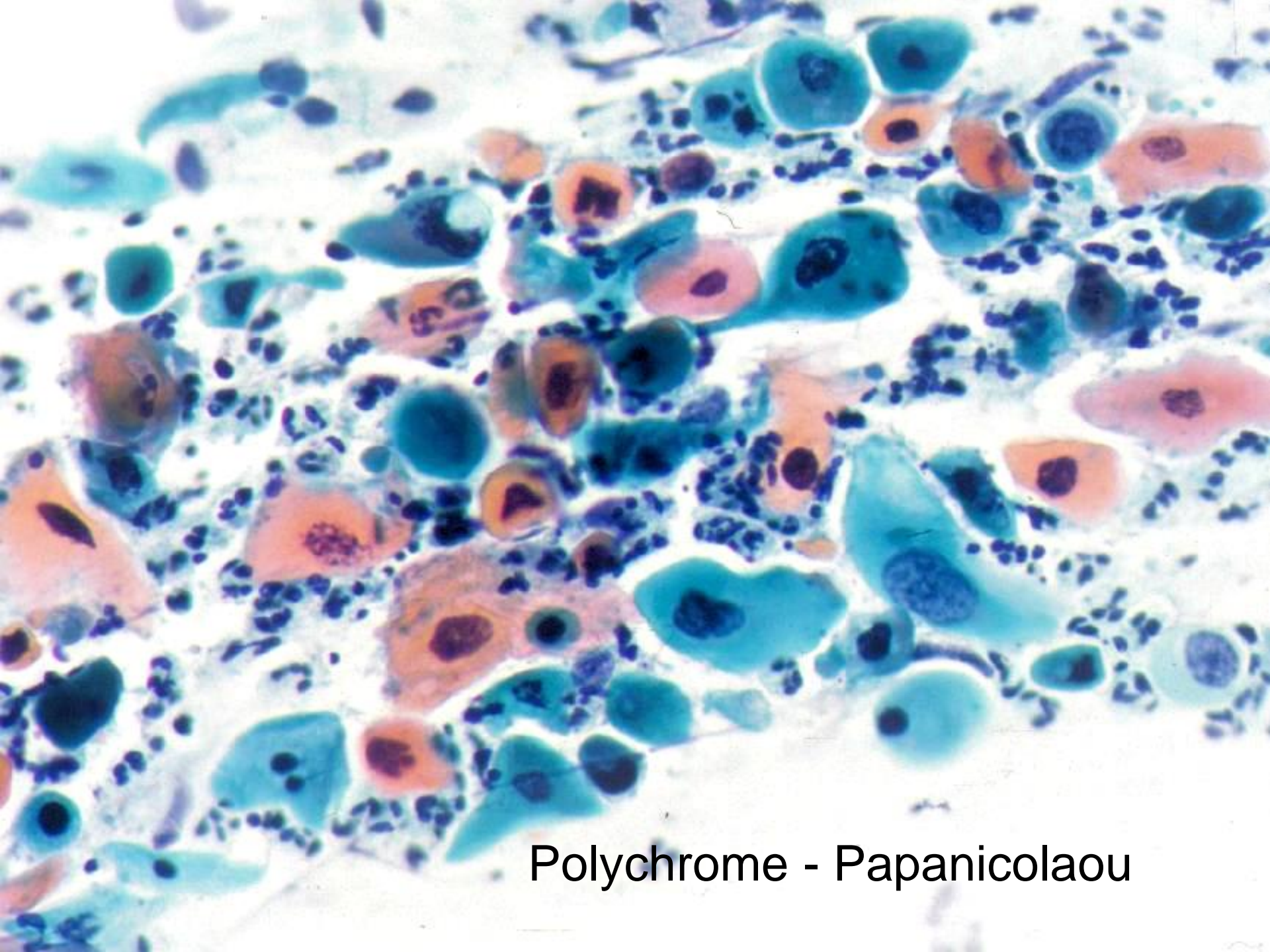
Montování

U-Zone



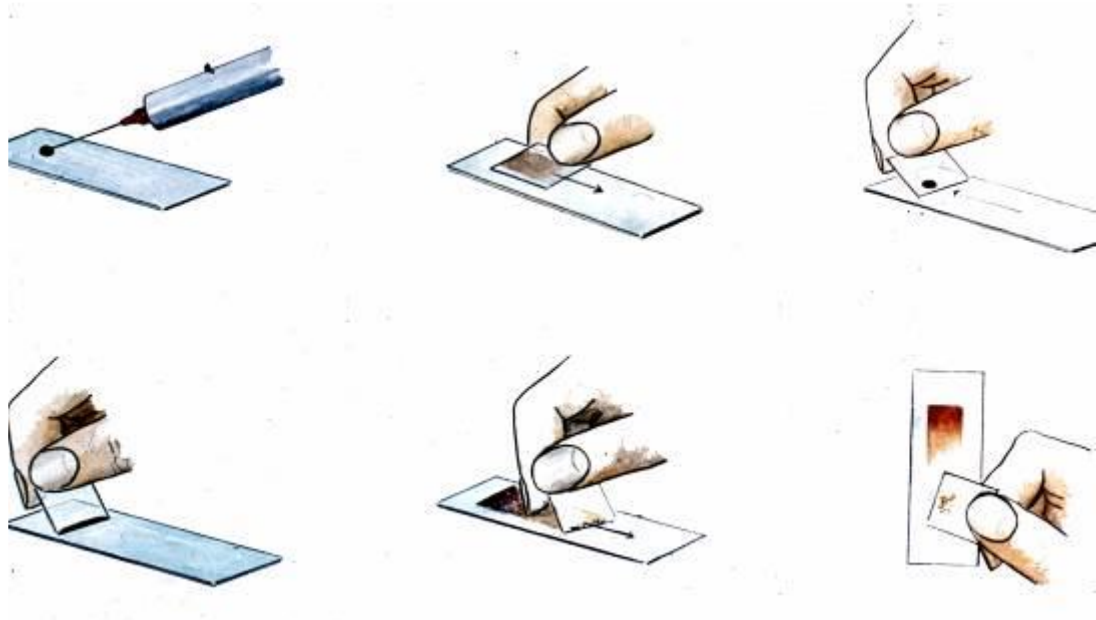
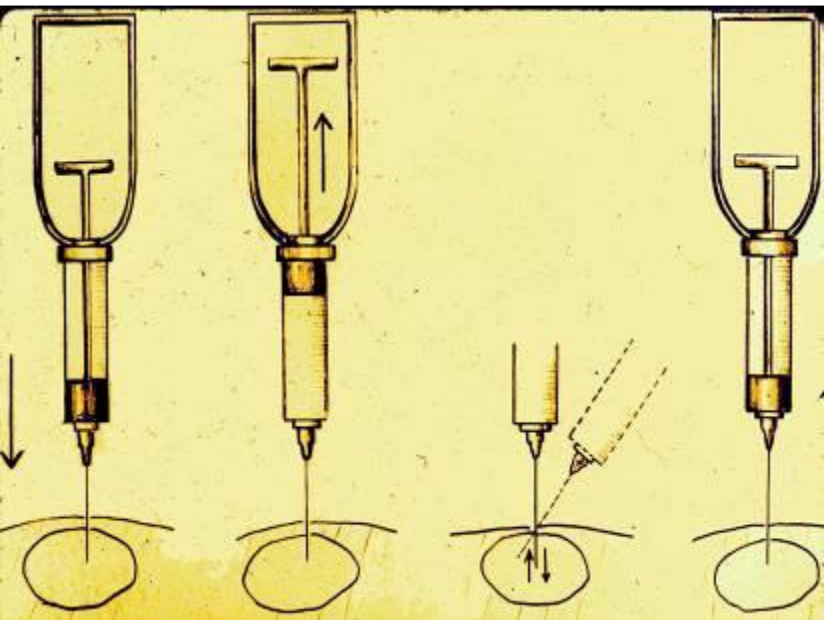
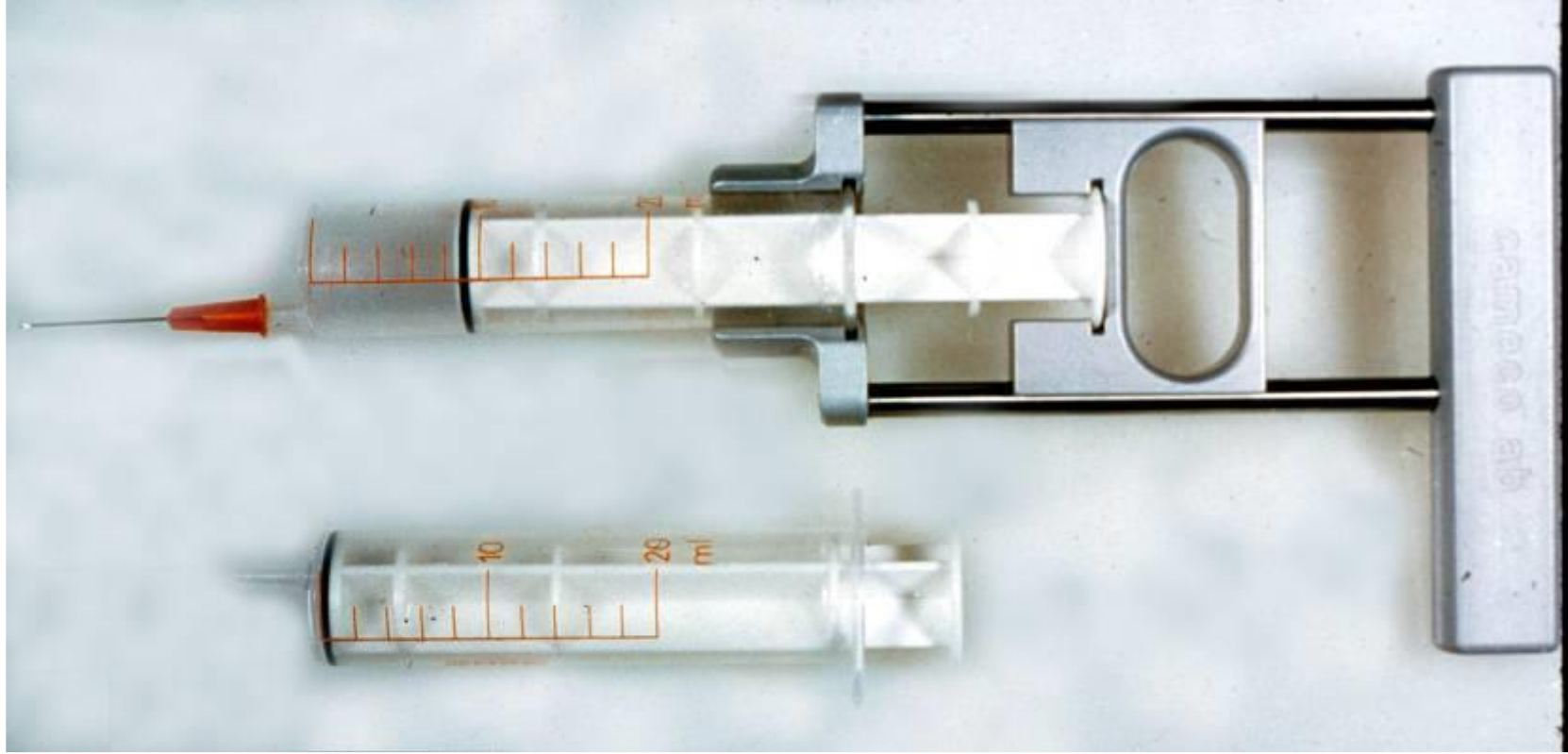
U-Zone





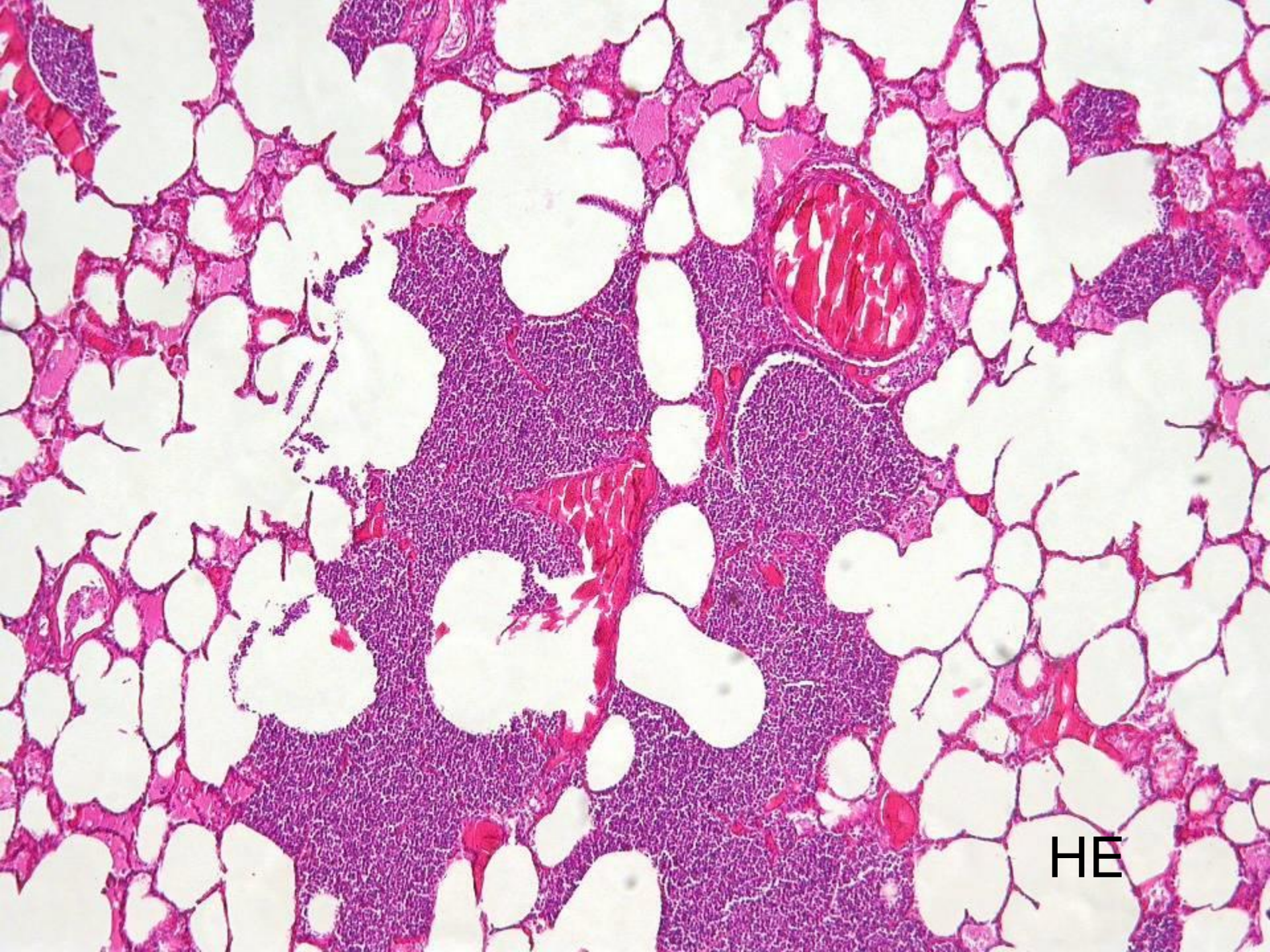
Polychrome - Papanicolaou

F N A B

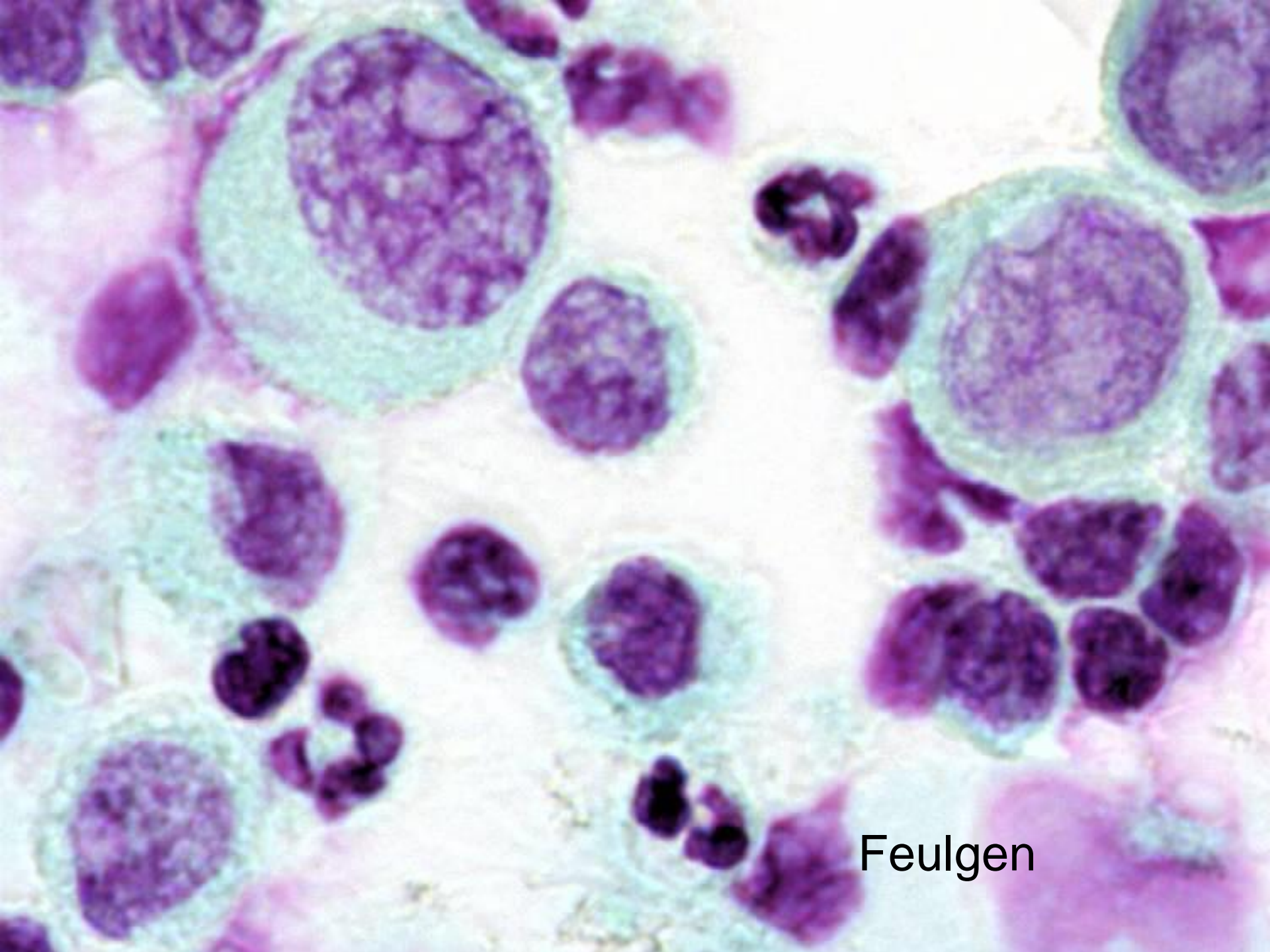


Proč barvíme preparáty ?

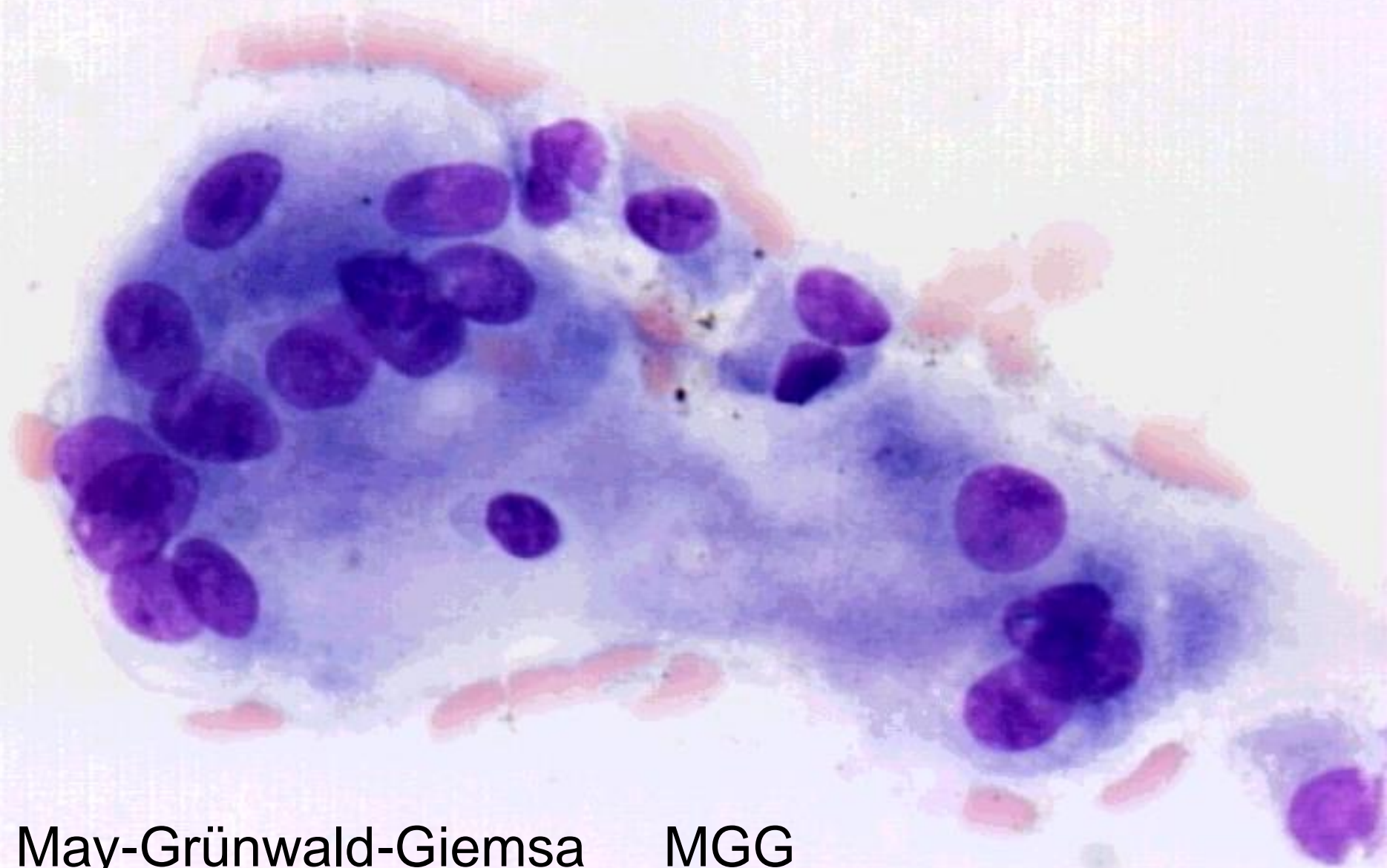
- pro zviditelnění struktur
(empirická barviva pochází z textilního průmyslu)
- k průkazu určitého materiálu
(např. Fe biochemická reakce – histochemie)
- zviditelnění mikroorganismů
(bakterioskopie, mykózy, paraziti)



HE



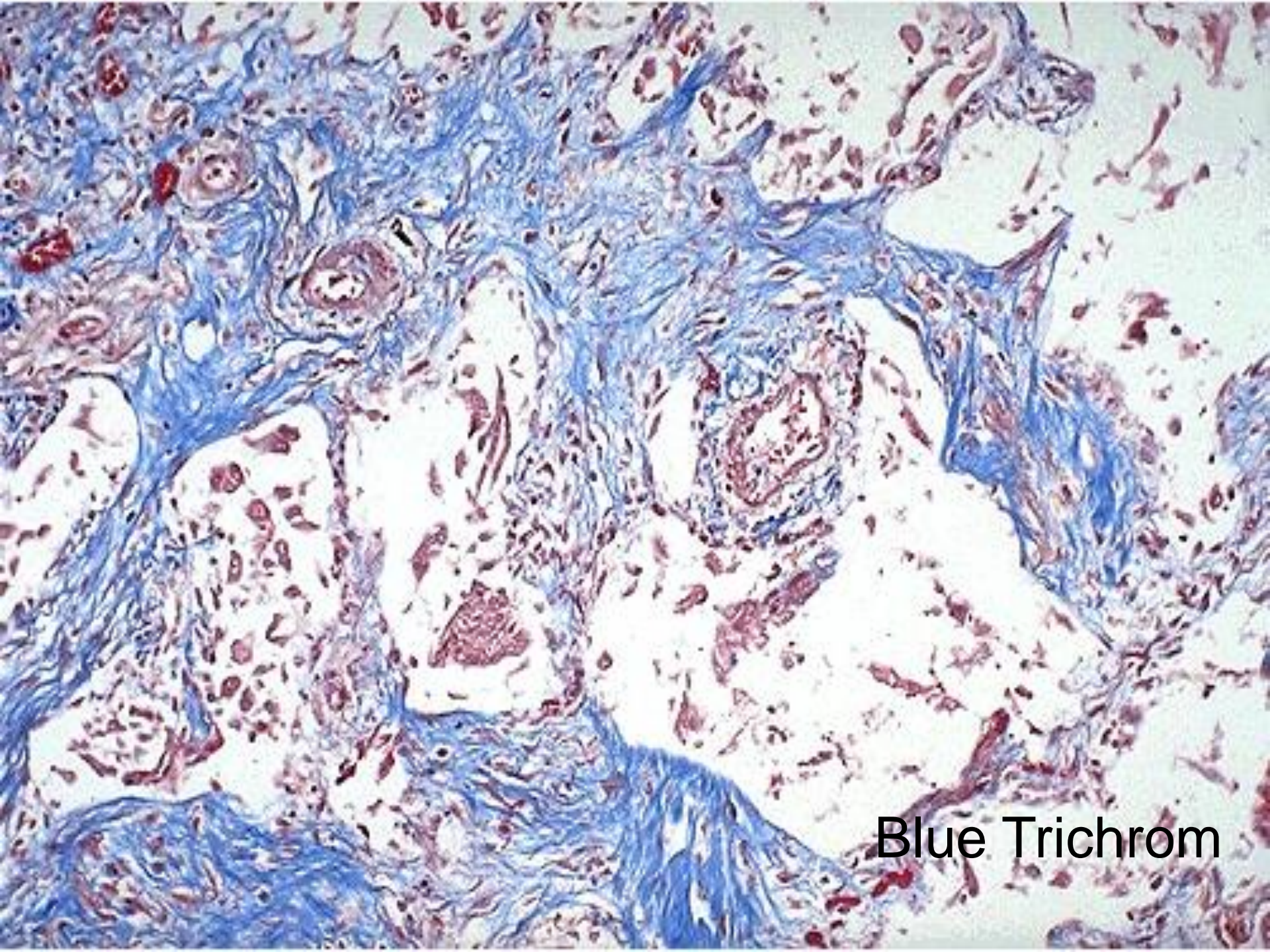
Feulgen



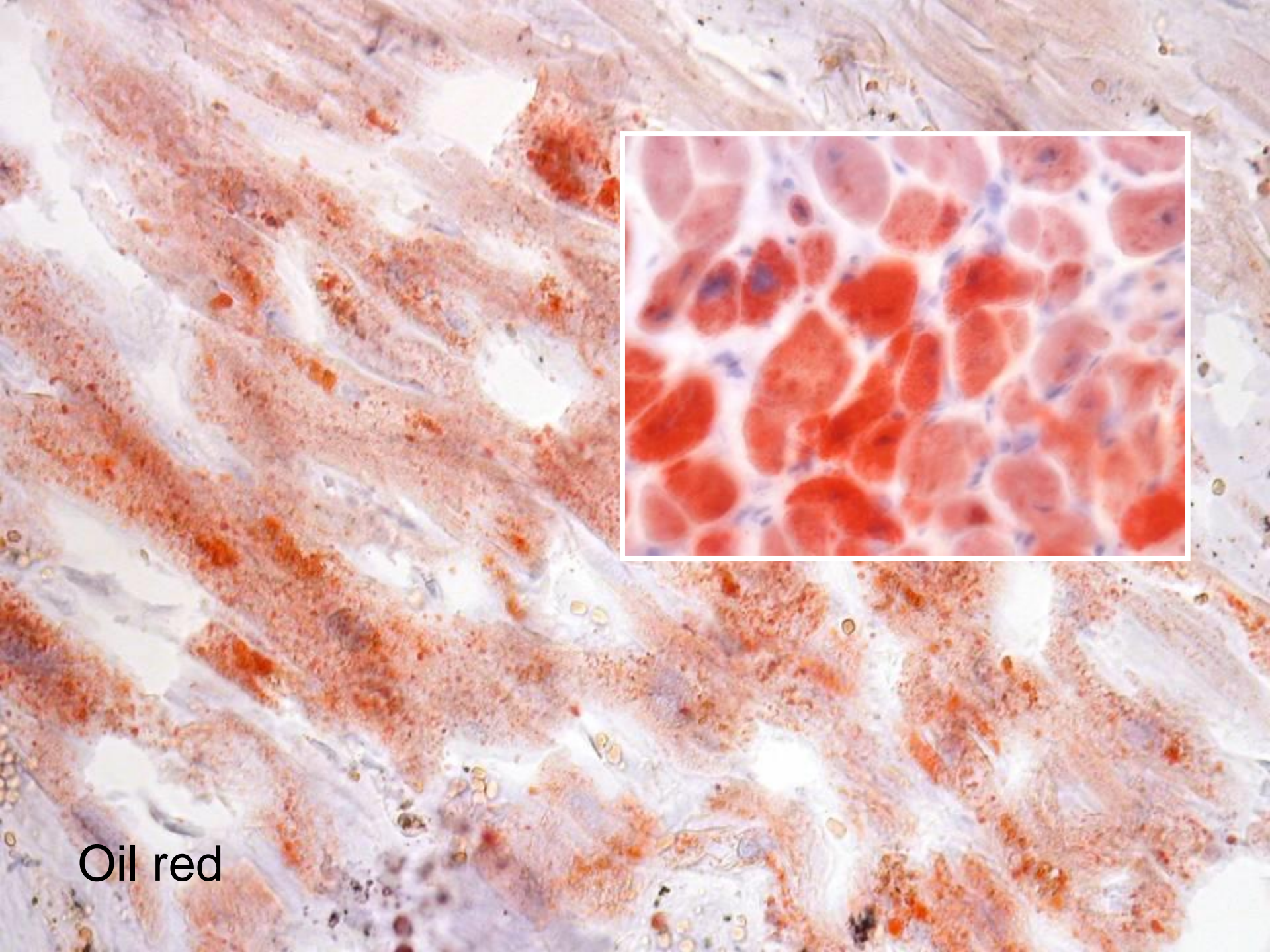
May-Grünwald-Giemsa MGG



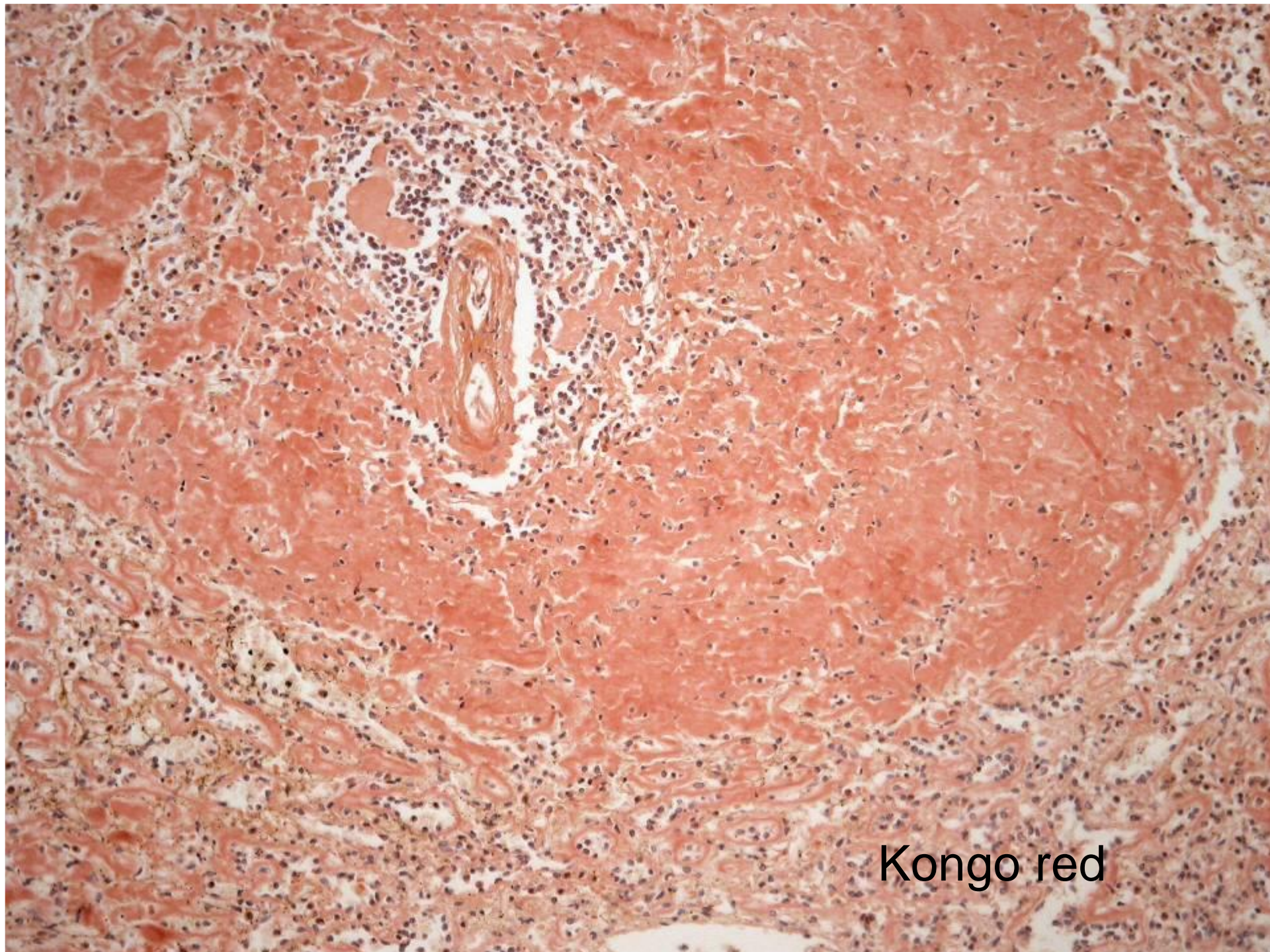
van Gieson - Elastica



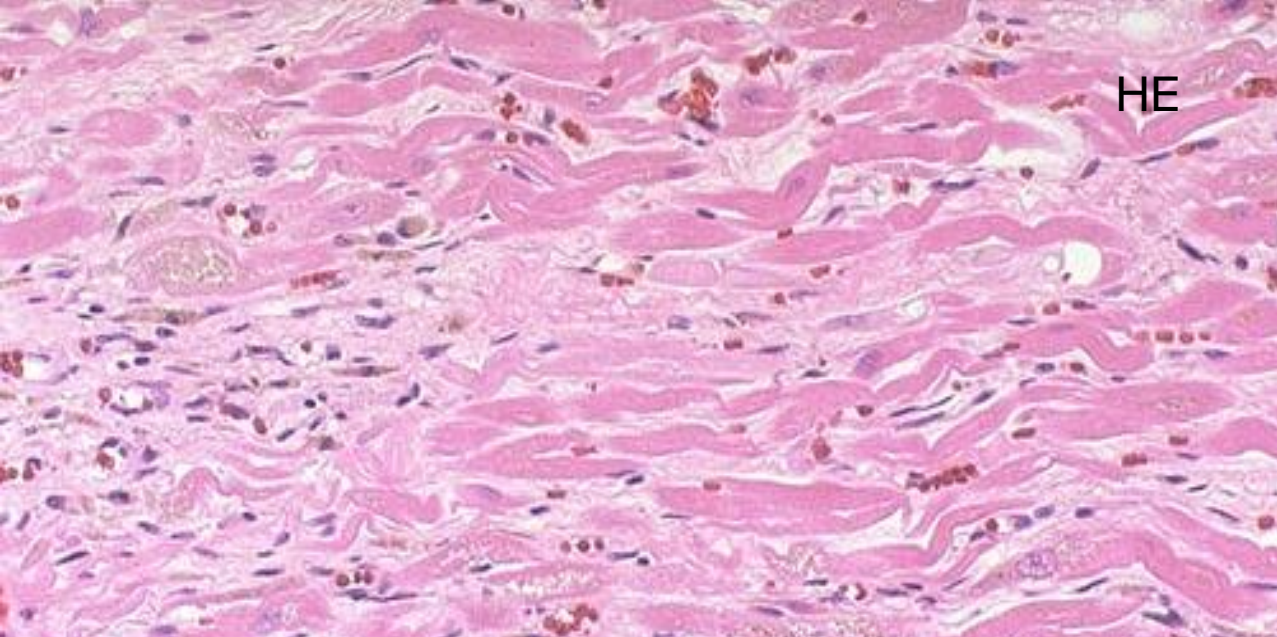
Blue Trichrom



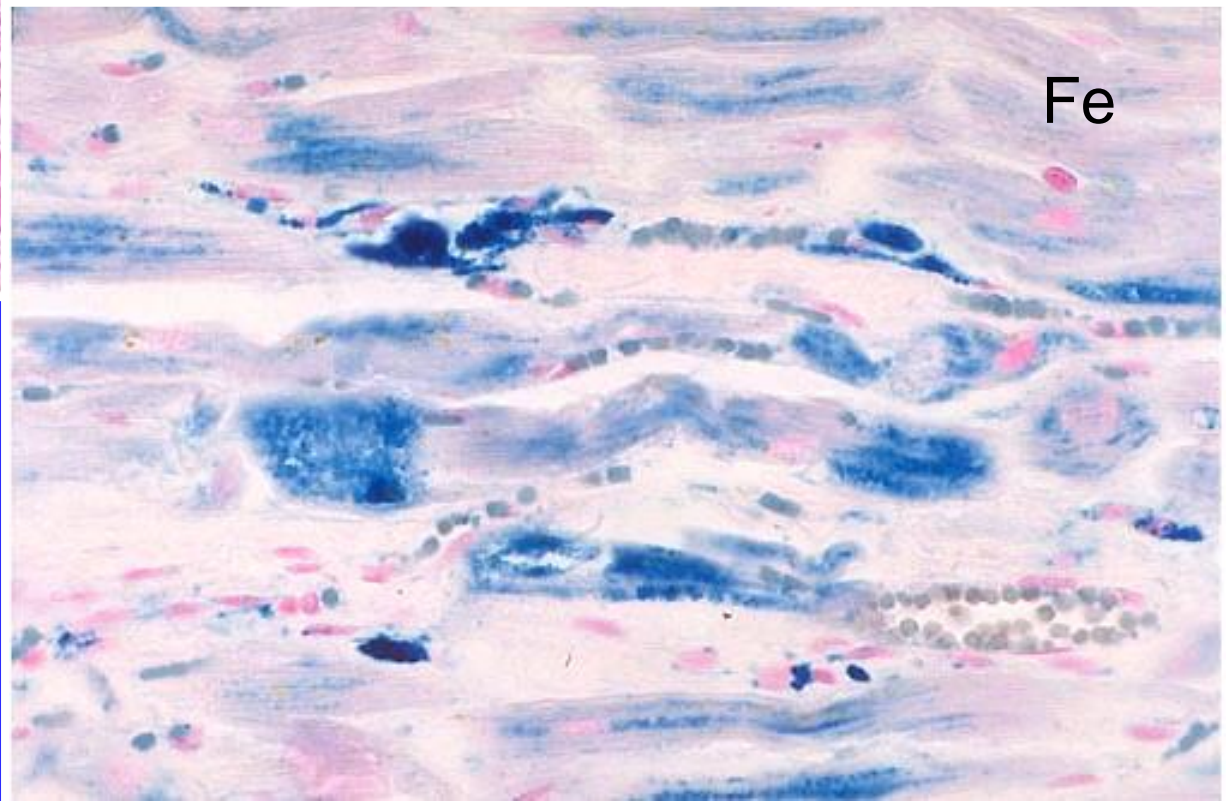
Oil red



Kongo red

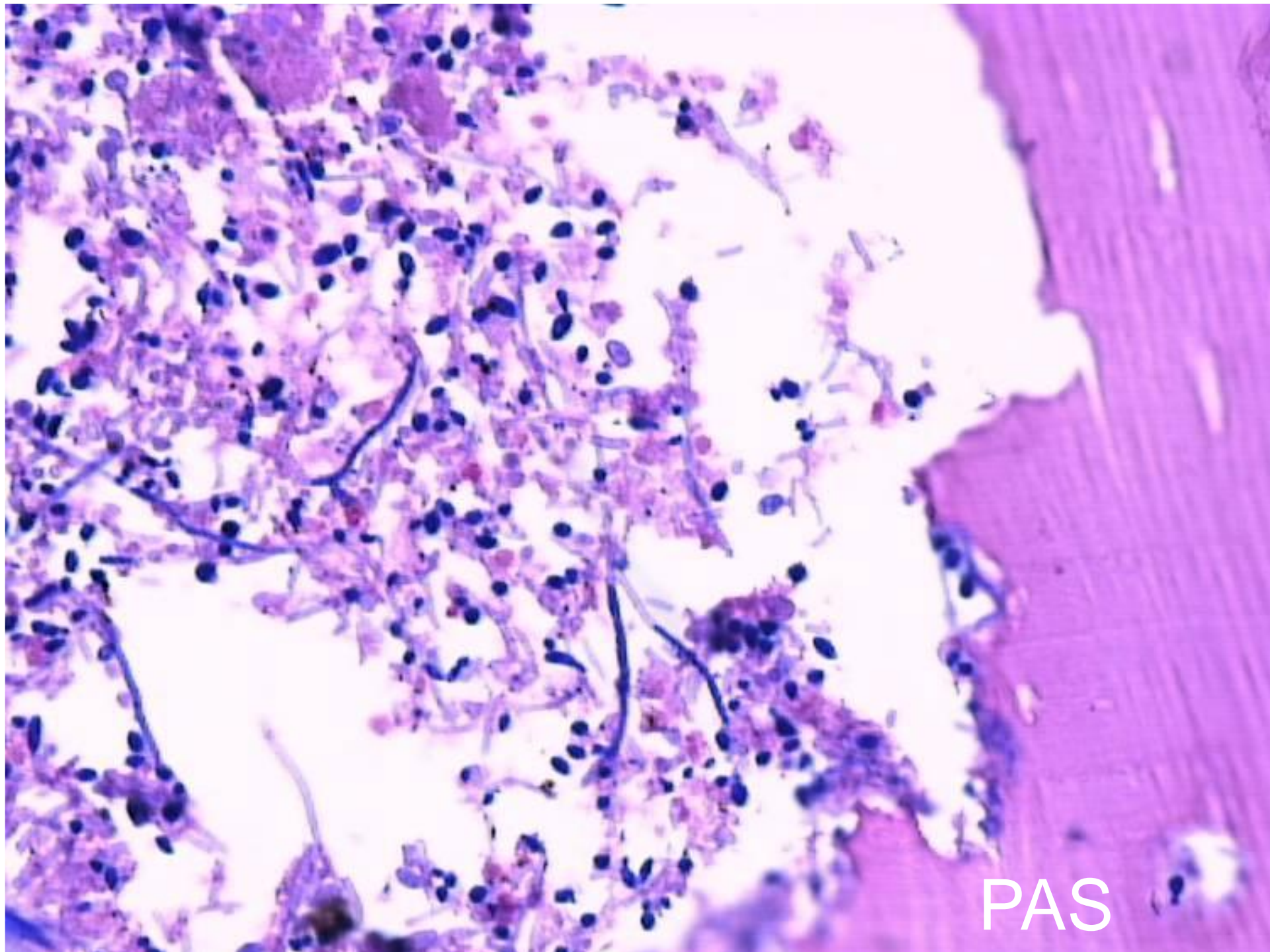


HE

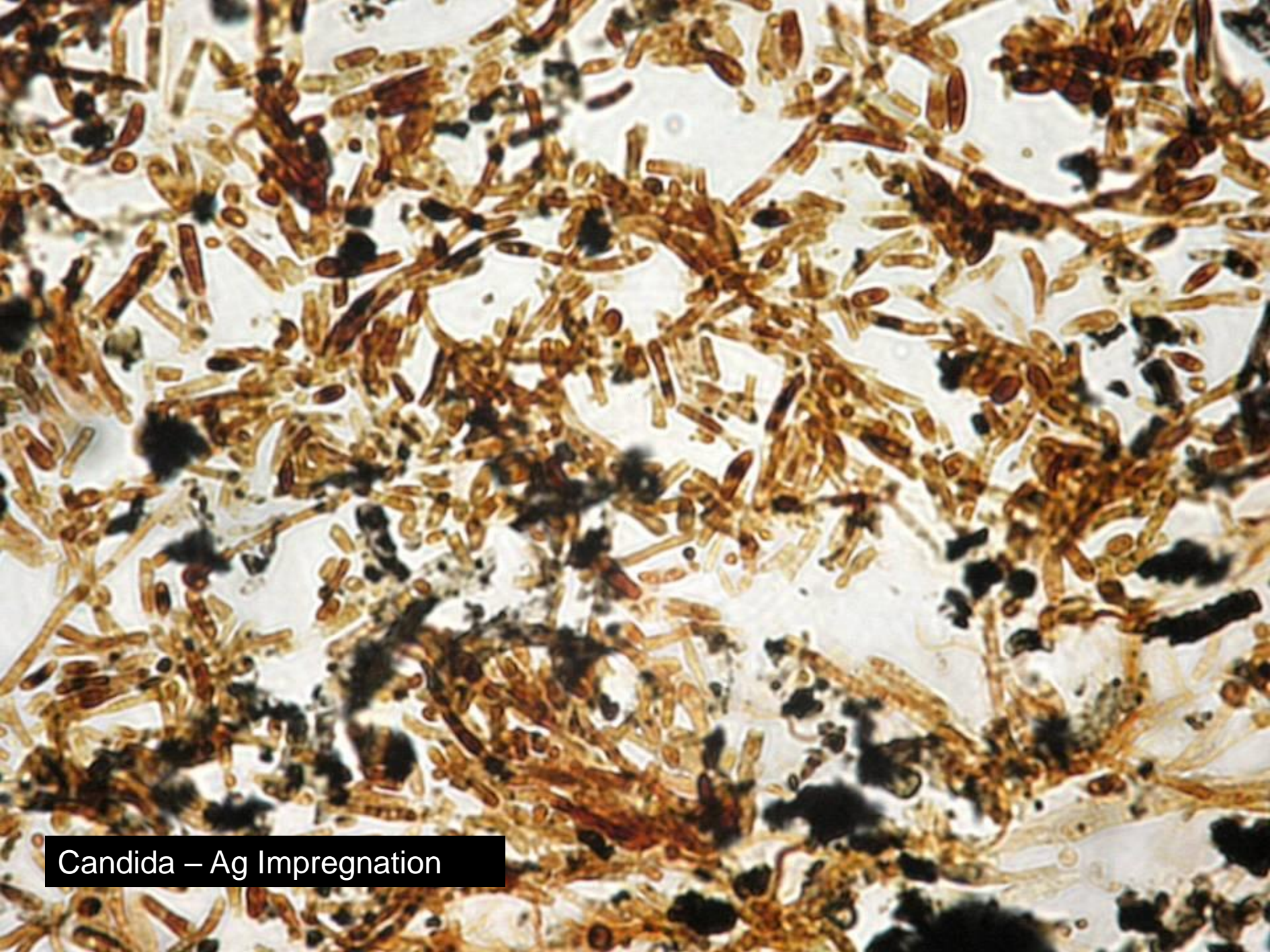


Fe

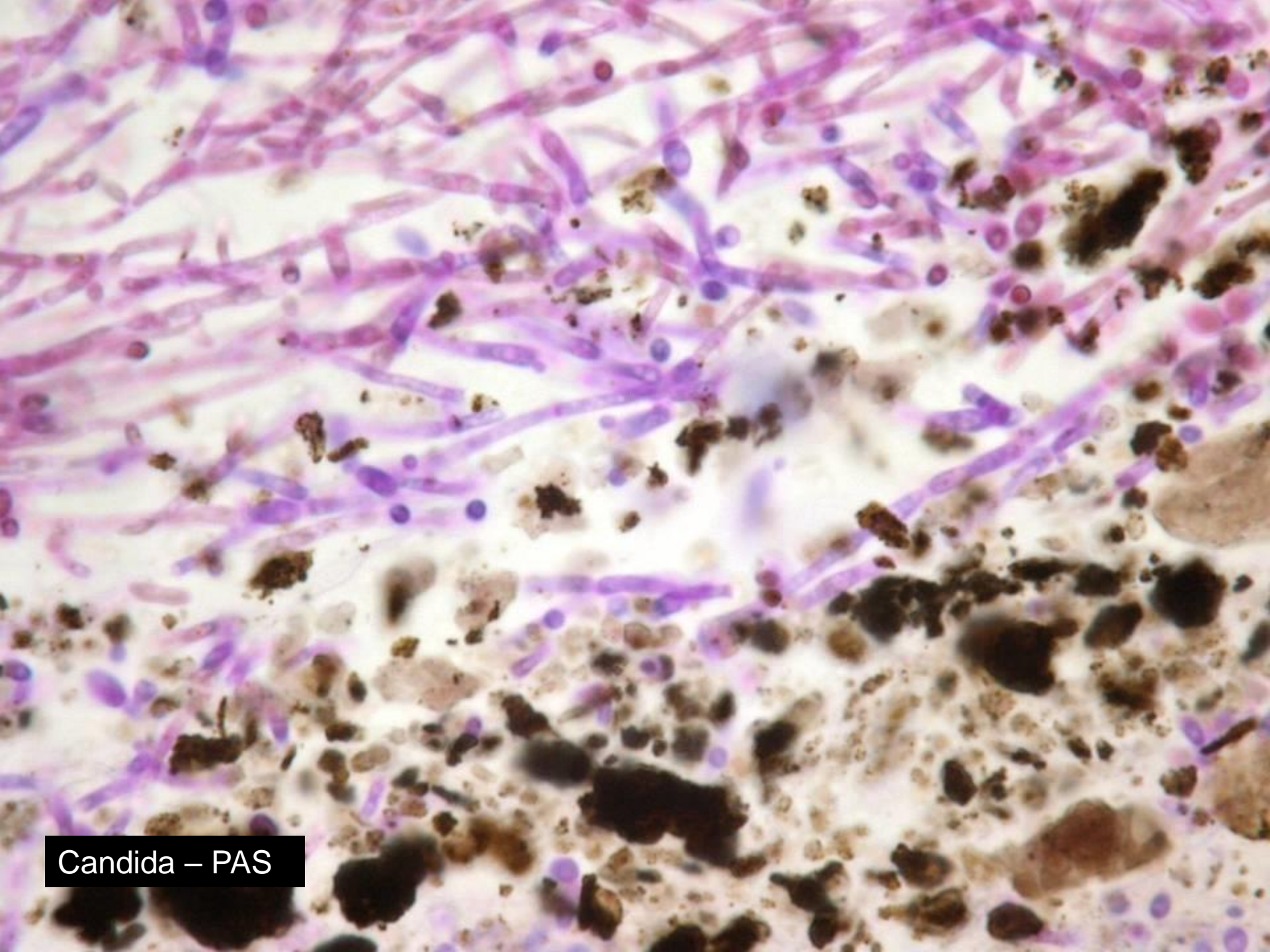
Haemochromatosis
myocardii



PAS

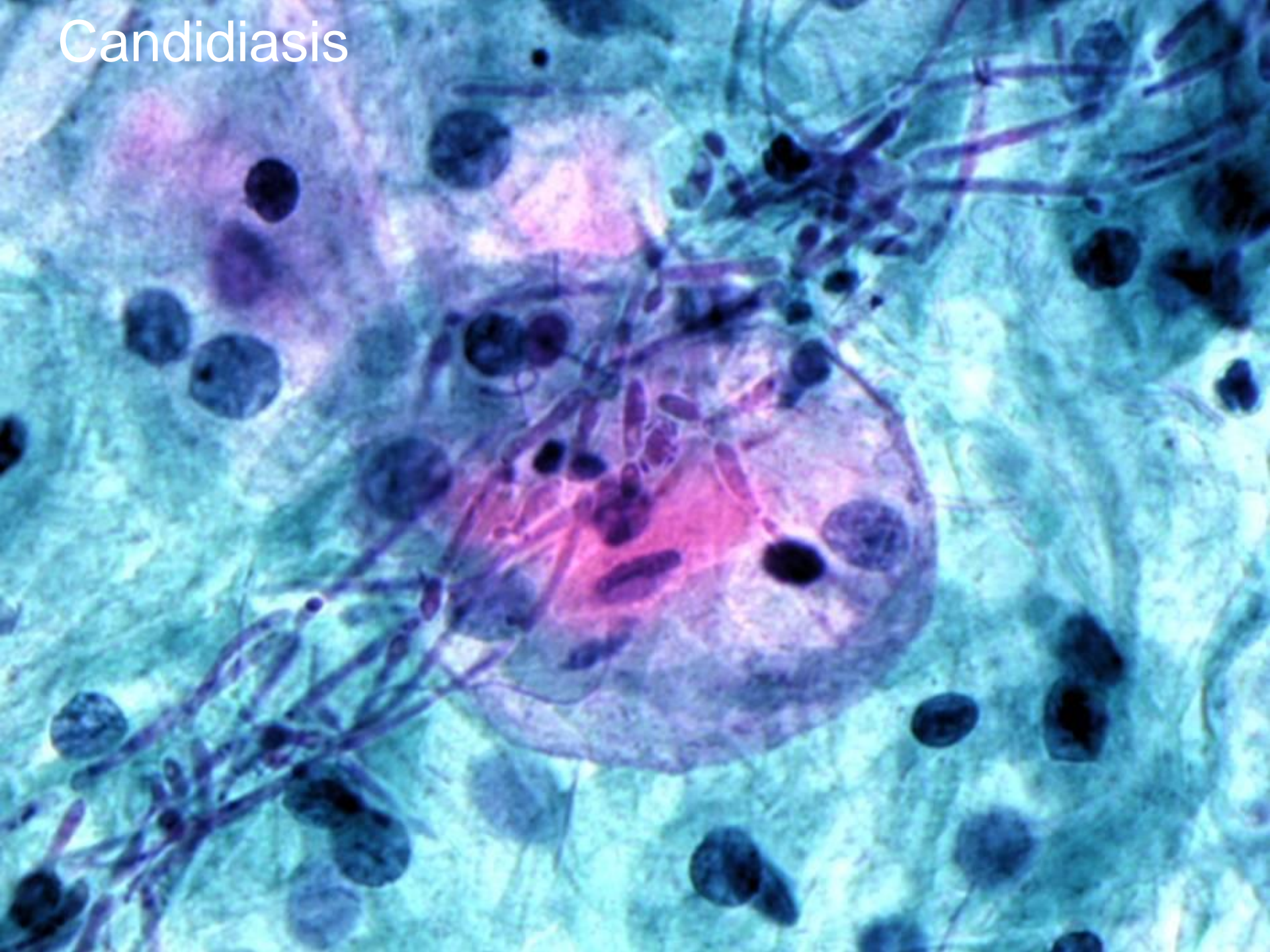


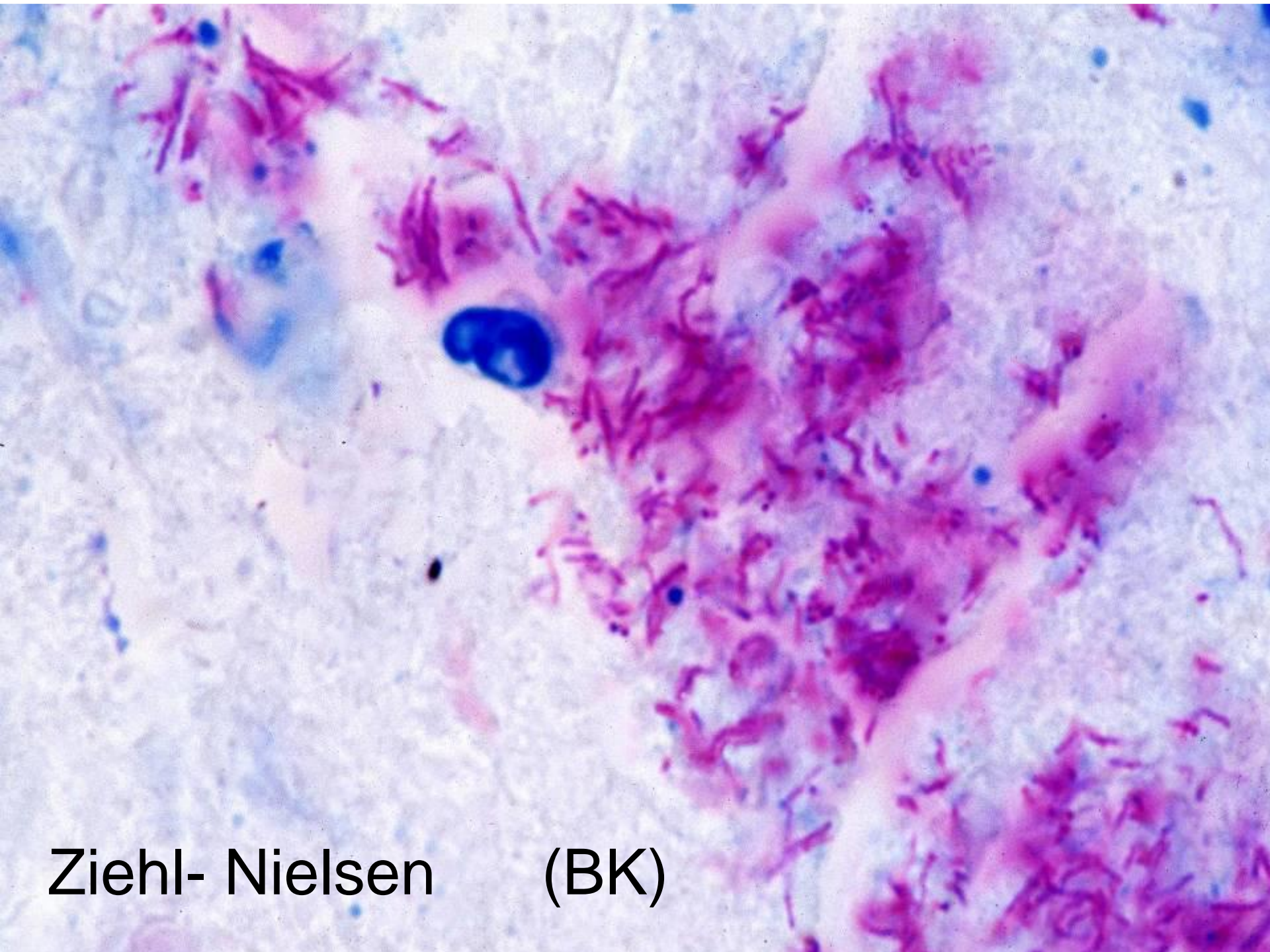
Candida – Ag Impregnation



Candida – PAS

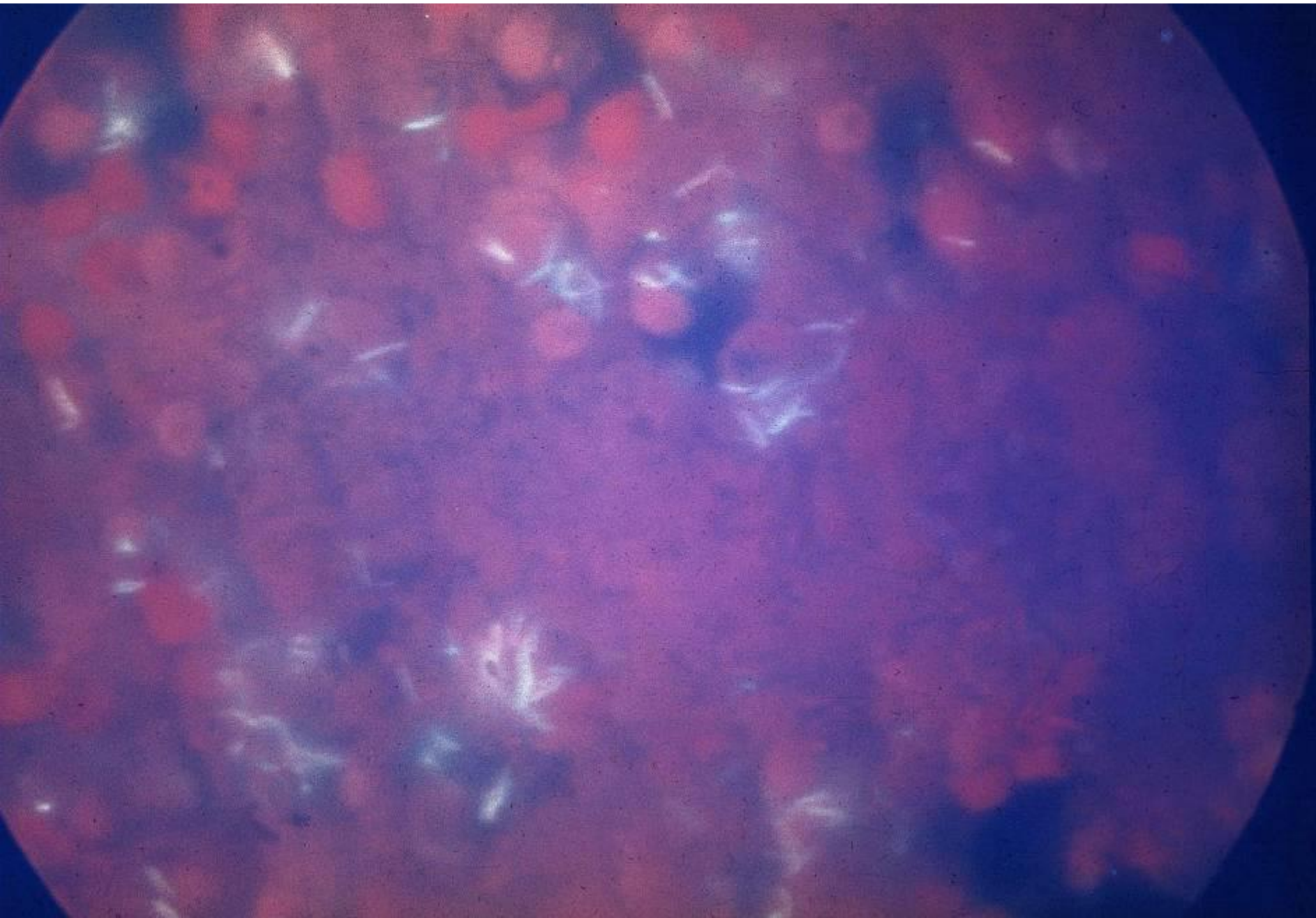
Candidiasis

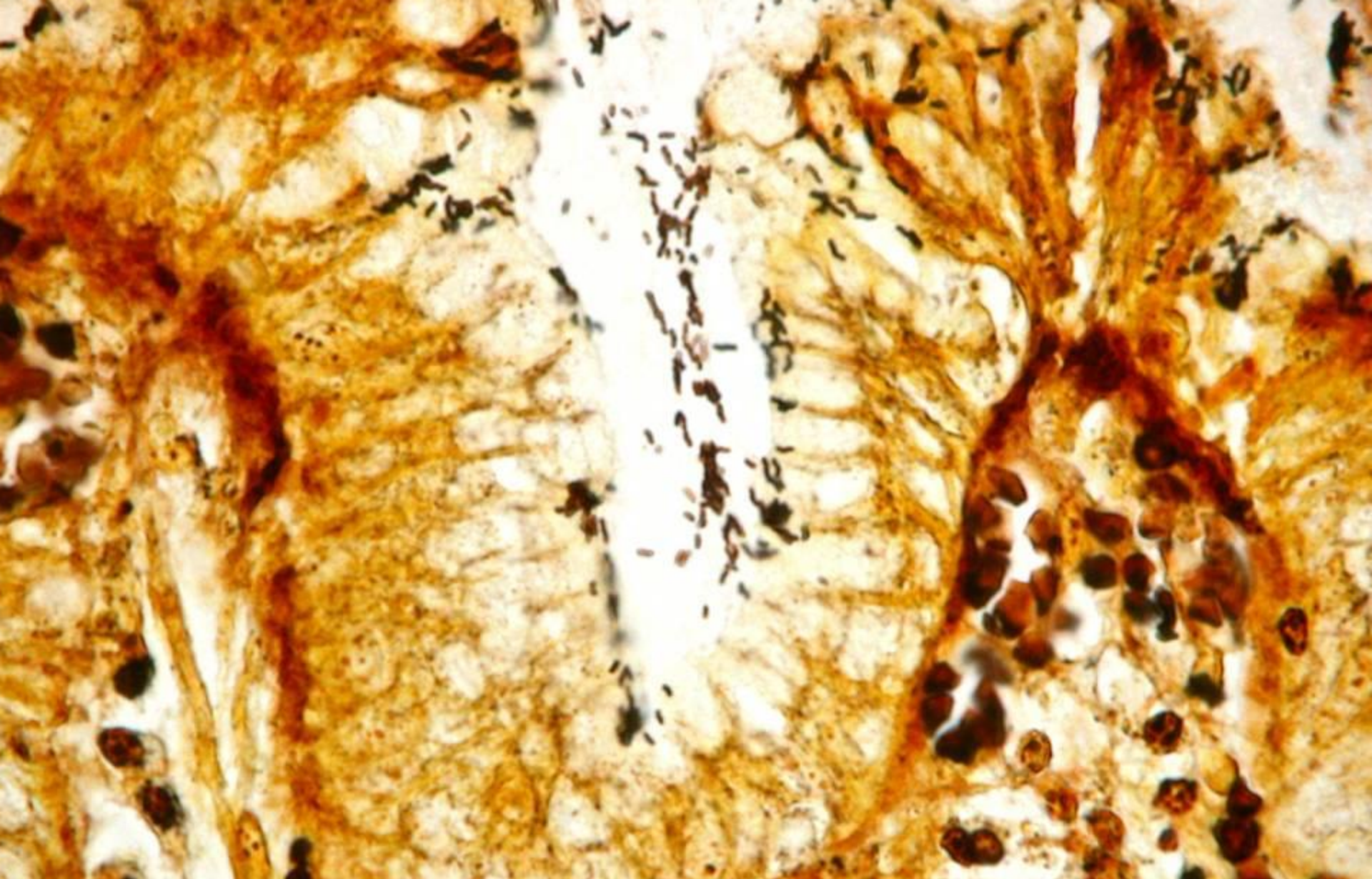




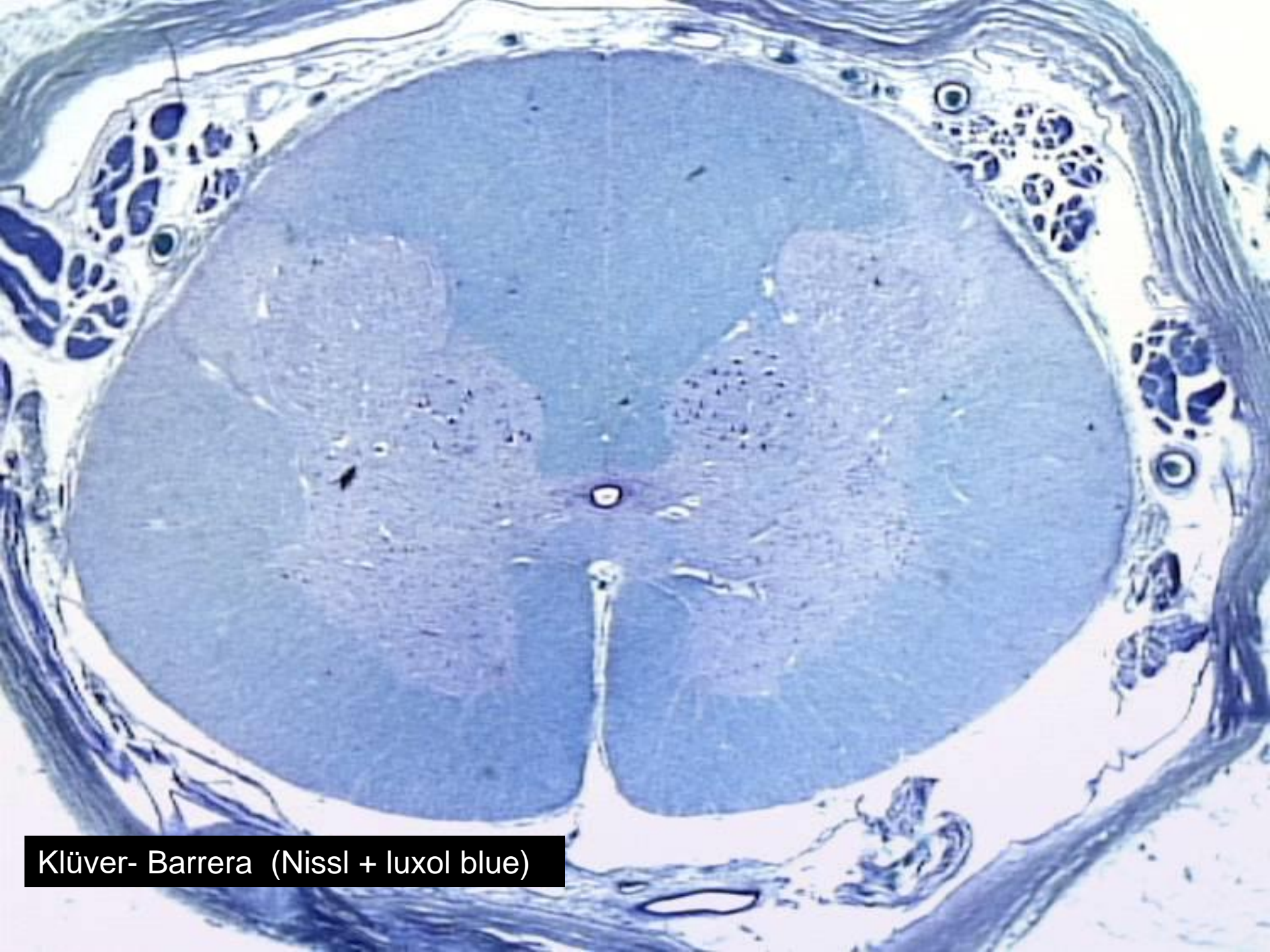
Ziehl- Nielsen (BK)

Auramine-Rhodamine





Helicobacter pylori (Warthin – Stary impregnation)

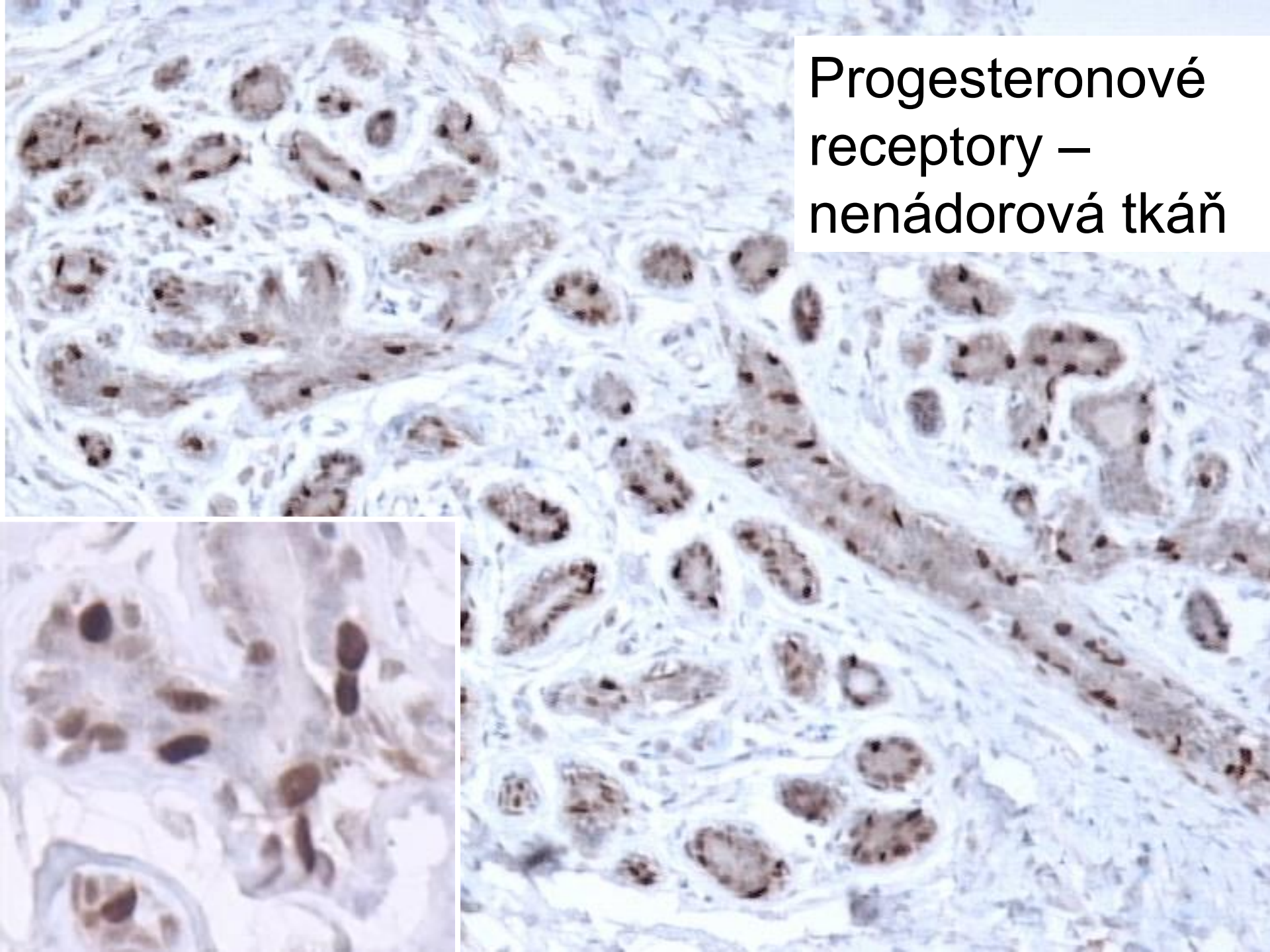


Klüver- Barrera (Nissl + luxol blue)

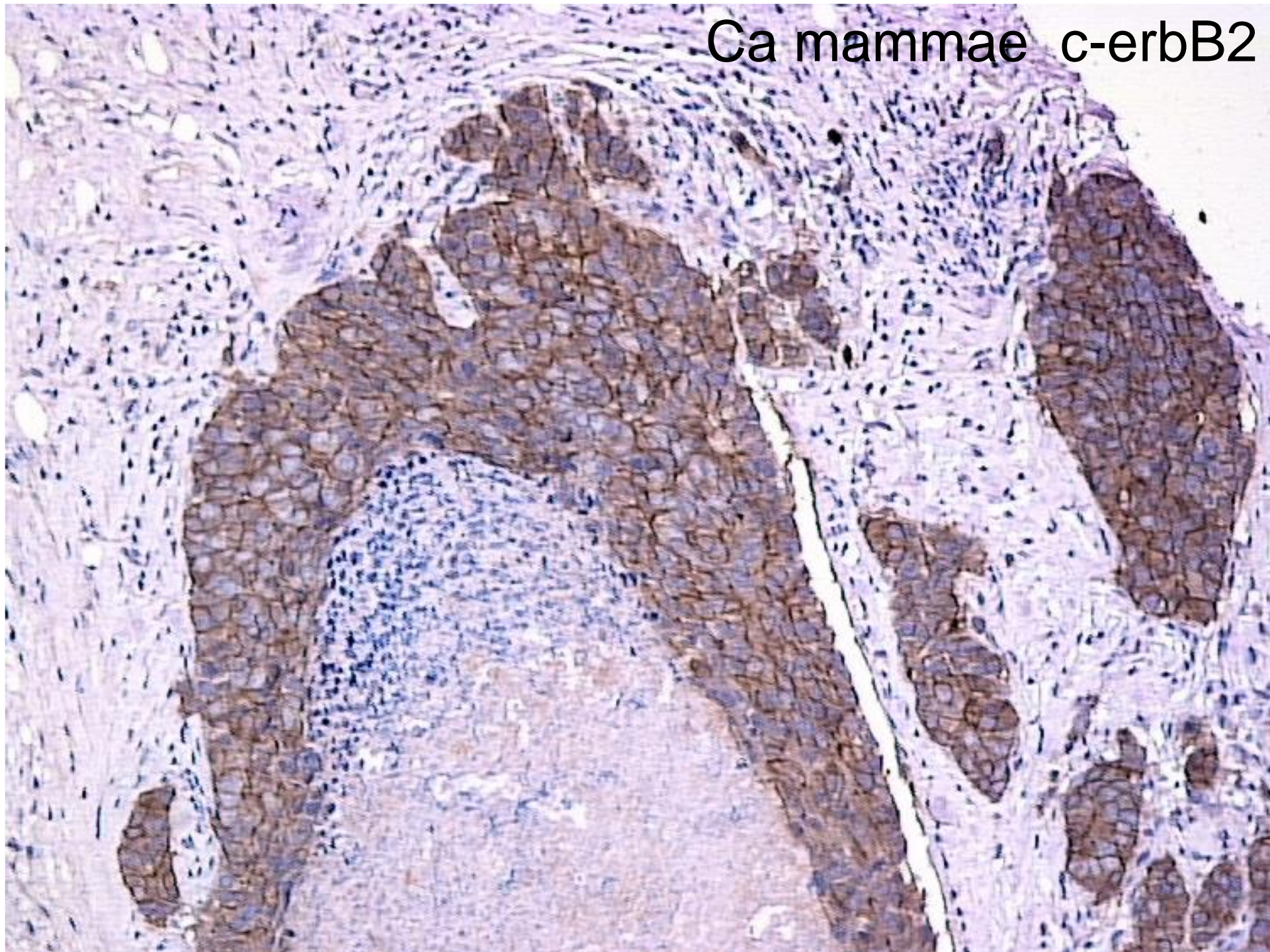
Imunohistochemie

- **detekce antigenu použitím protilátky**
(komerčně dostupné)
- protilátka reaguje s antigenem a
- reakce je **visualizována** (většinou enzymatickým systémem , v němž produkt je barevný, např. diaminobenzidinem DAB) – hnědý reakční produkt

Progesteronové
receptory –
nenádorová tkáň



Ca mammae c-erbB2



Morfologické diagnostické metody

□ Patologické

- makroskopie

- mikroskopie

- ultrastruktura

- **IMAGING** – zobrazování

- Lexicon
- Obrázky
- ento počítač
- Disketa 3,5 palce (A)
- Místní disk (C:)
 - Clasif01.10.12
 - dbnet
 - del
 - Documents and
 - IV-400
 - jd
 - JDBASE
 - LUCIA
 - Lucia Cytogene

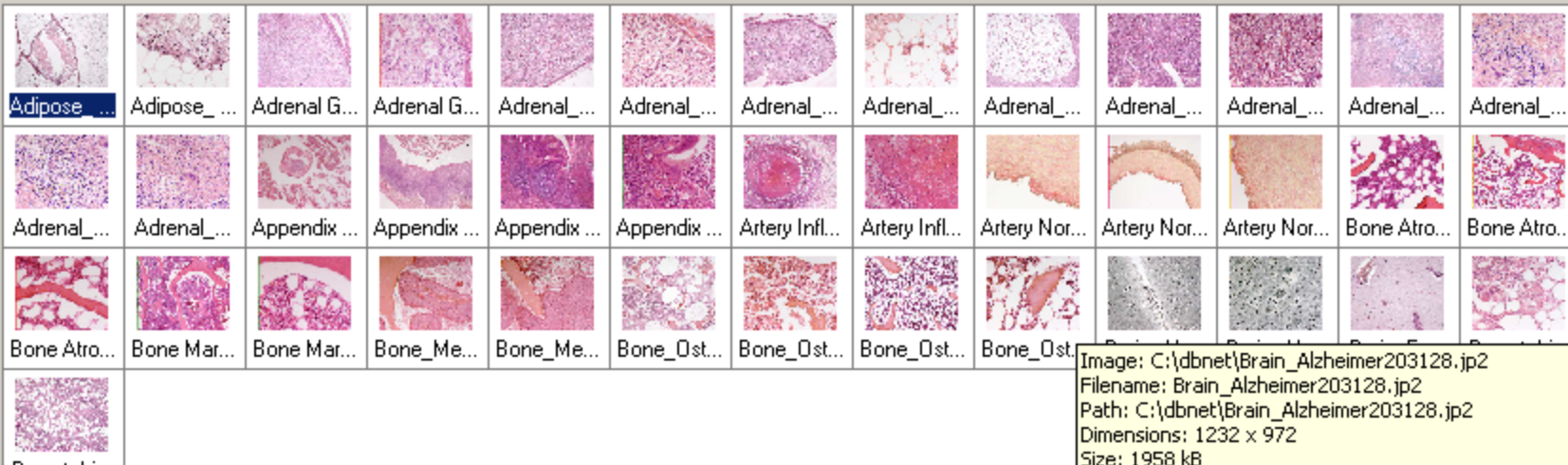
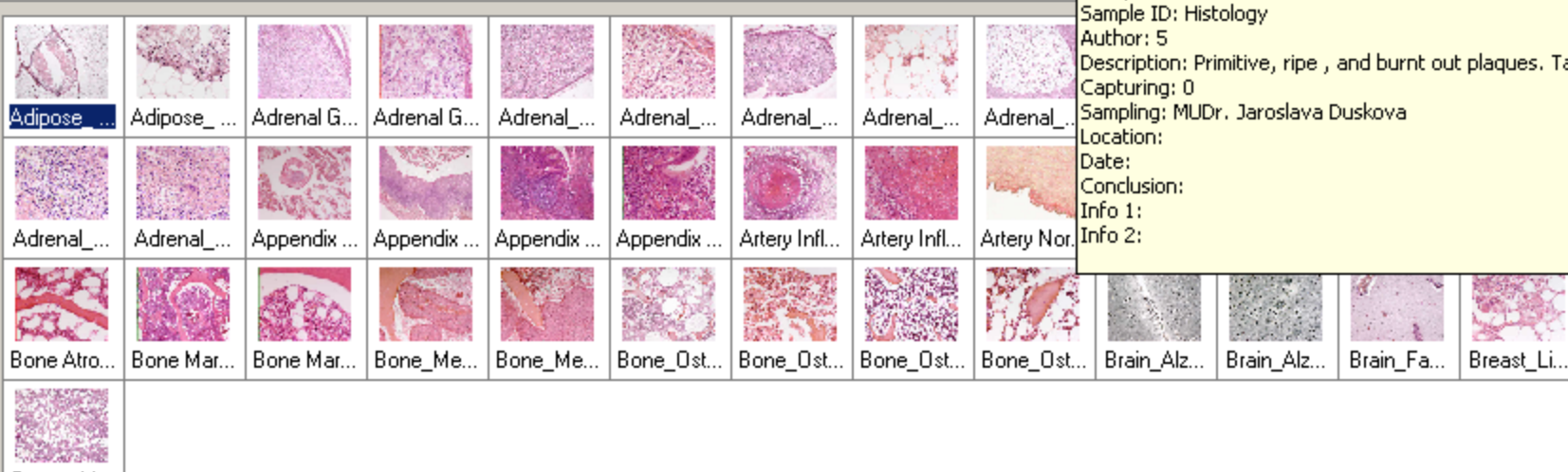


Image: C:\dbnet\Brain_Alzheimer203128.jp2
 Filename: Brain_Alzheimer203128.jp2
 Path: C:\dbnet\Brain_Alzheimer203128.jp2
 Dimensions: 1232 x 972
 Size: 1958 kB
 File date: 18.1.2002
 Calibration: 0.329560
 Image ID:
 Type: Brain
 Group: m. Alzheimer
 Sample ID: Histology
 Author: 5
 Description: Primitive, ripe , and burnt out plaques. Tar
 Capturing: 0
 Sampling: MUDr. Jaroslava Duskova
 Location:
 Date:
 Conclusion:
 Info 1:
 Info 2:

- Lexicon
- Obrázky
- ento počítač
- Disketa 3,5 palce (A)
- Místní disk (C:)
 - Clasif01.10.12
 - dbnet
 - del
 - Documents and
 - IV-400
 - jd
 - JDBASE
 - LUCIA
 - Lucia Cytogene



Morfometrická vyšetření

- objektivizace & zpřesnění diagnostických postupů
 - **staging** (*např. maligní melanom*)
 - **grading** (*např. karcinom ledviny*)