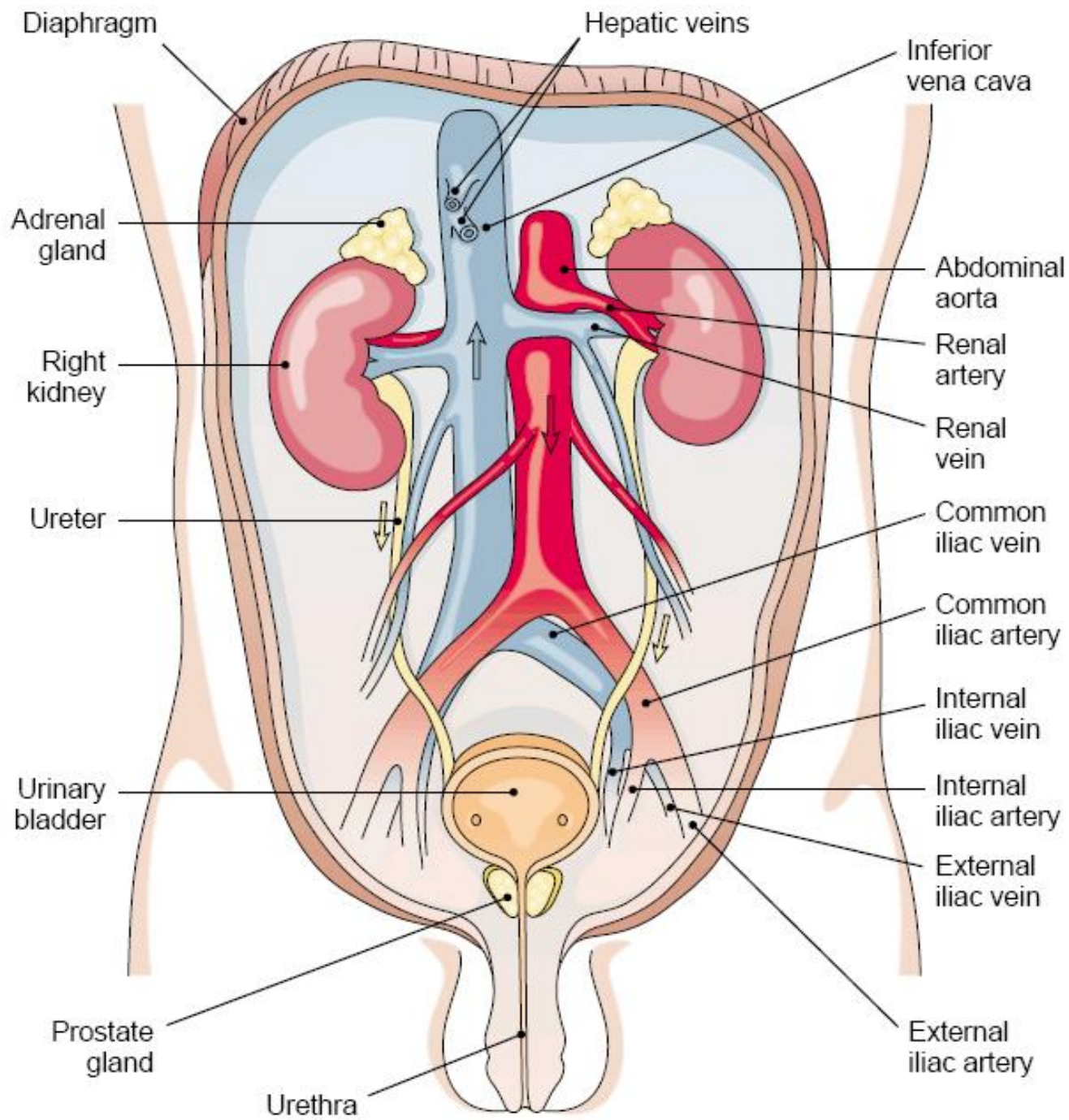




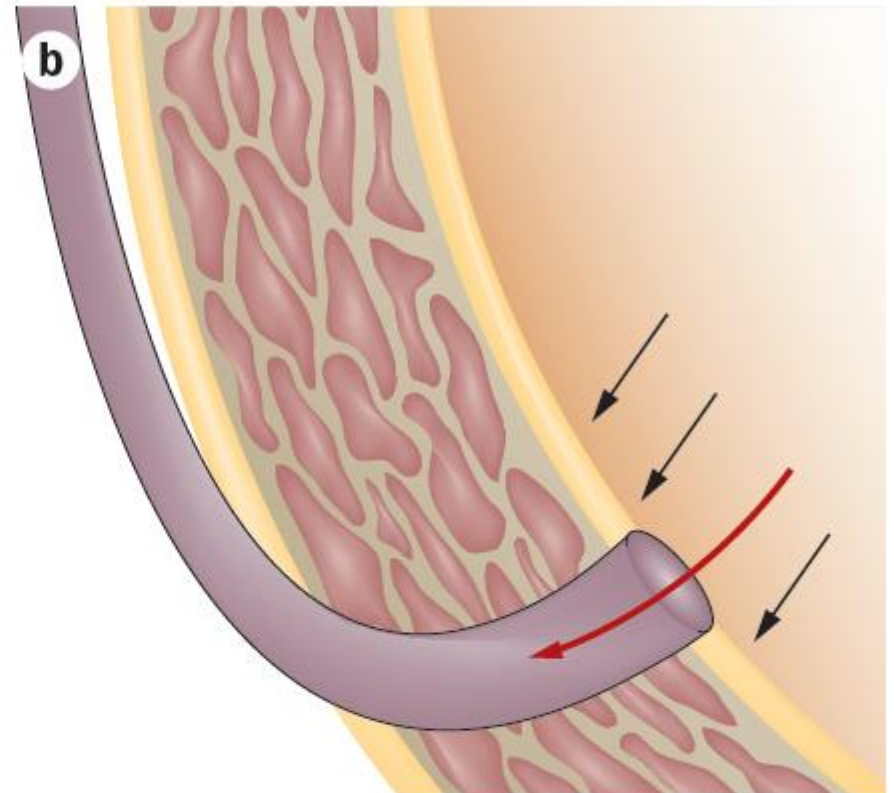
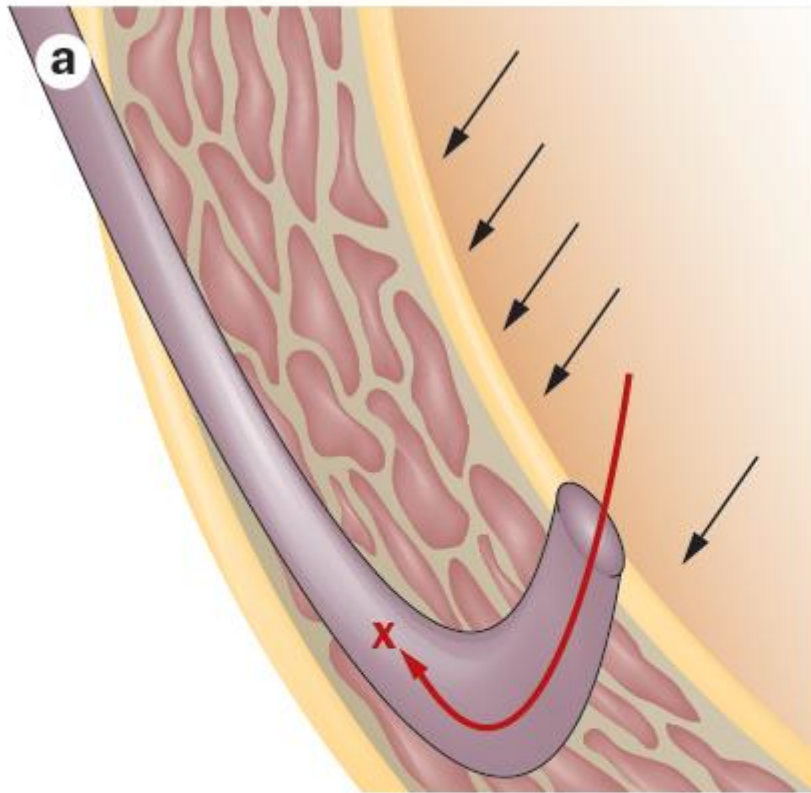
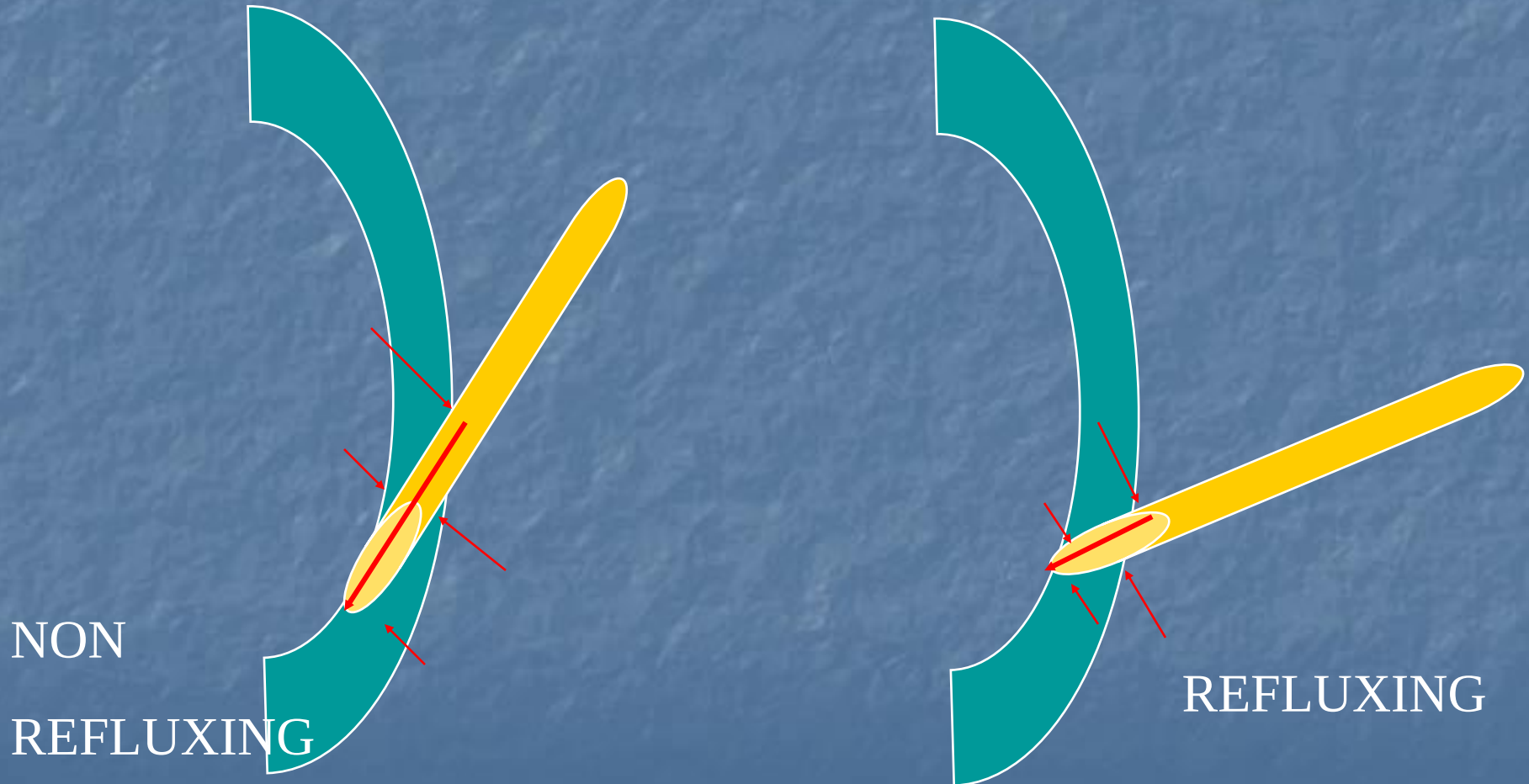


Figure 1 | Diagram of the bladder submucosal tunnel. **a** | Normal submucosal tunnel. Pressure in the lumen of the bladder increases as the bladder fills with urine, compressing the ureter within the bladder wall (arrows), stopping reflux (indicated by x). **b** | A short submucosal tunnel permits reflux as the section of ureter in the bladder wall is not long enough to be compressed by rising pressure in the filling bladder (arrows).

Pathogenesis of reflux— the simple explanation



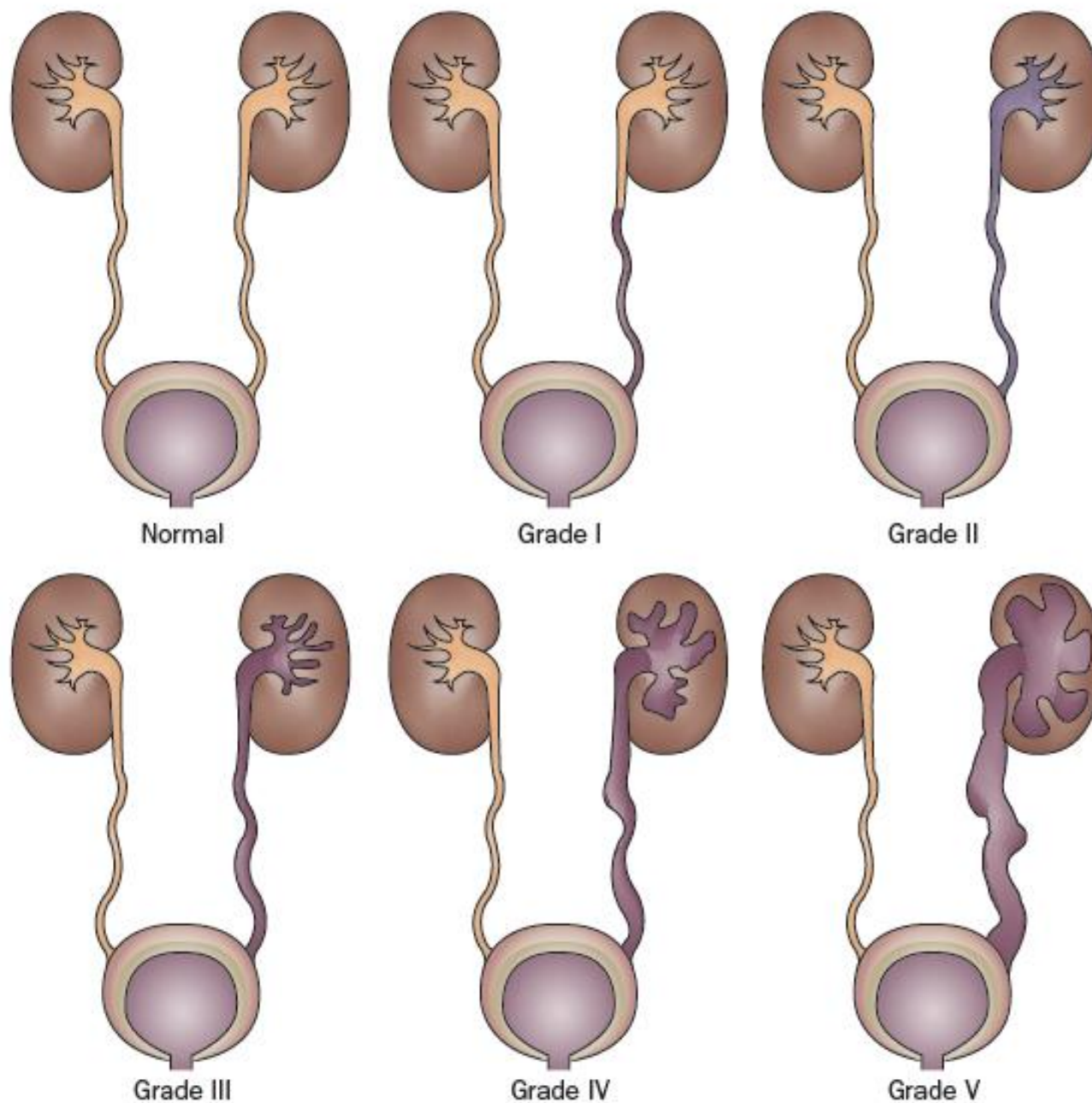


Figure 2 | International Reflux Grading System.

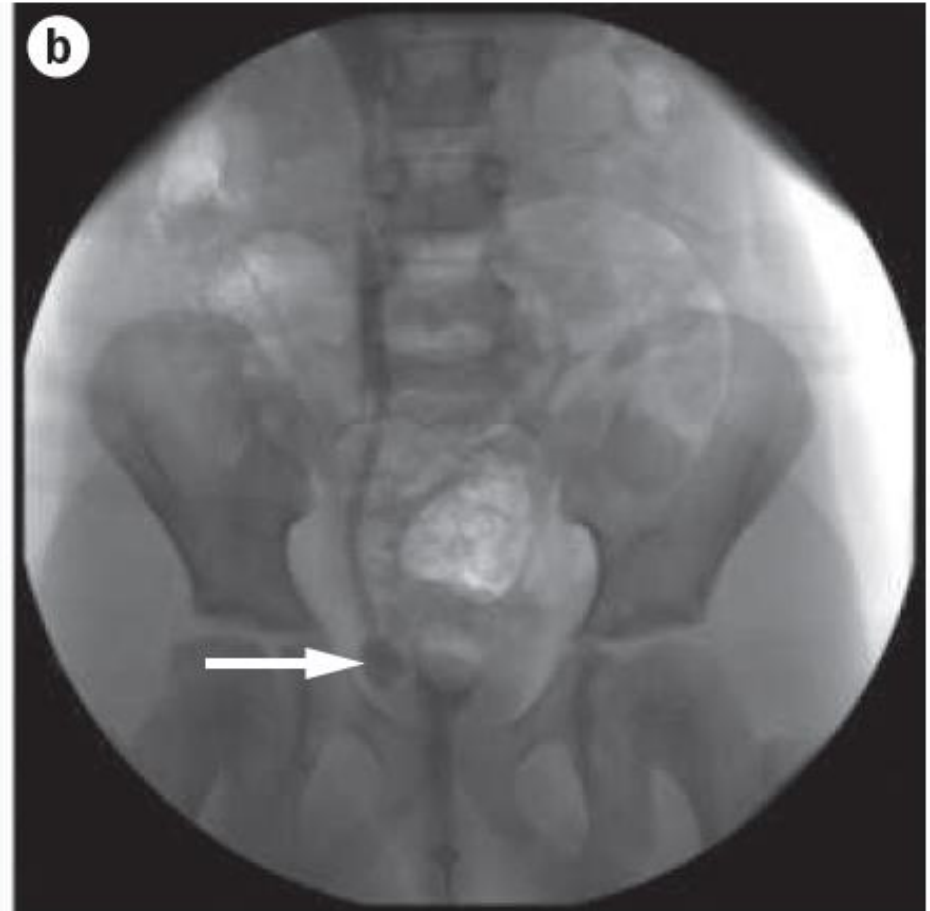
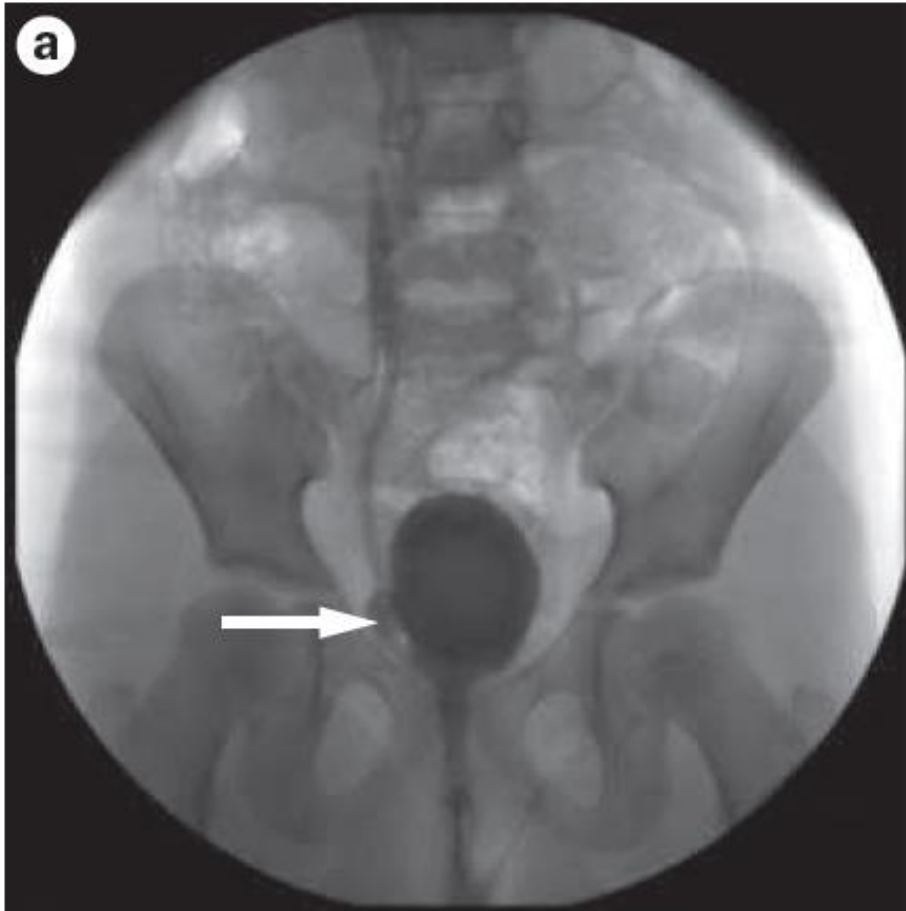


Figure 3 | Voiding cystourethrogram, demonstrating right-sided reflux with a periureteral diverticulum (arrows). **a** | The bladder is filled with contrast medium. **b** | The patient has voided and emptied the bladder of contrast medium, although some remains within the diverticulum.

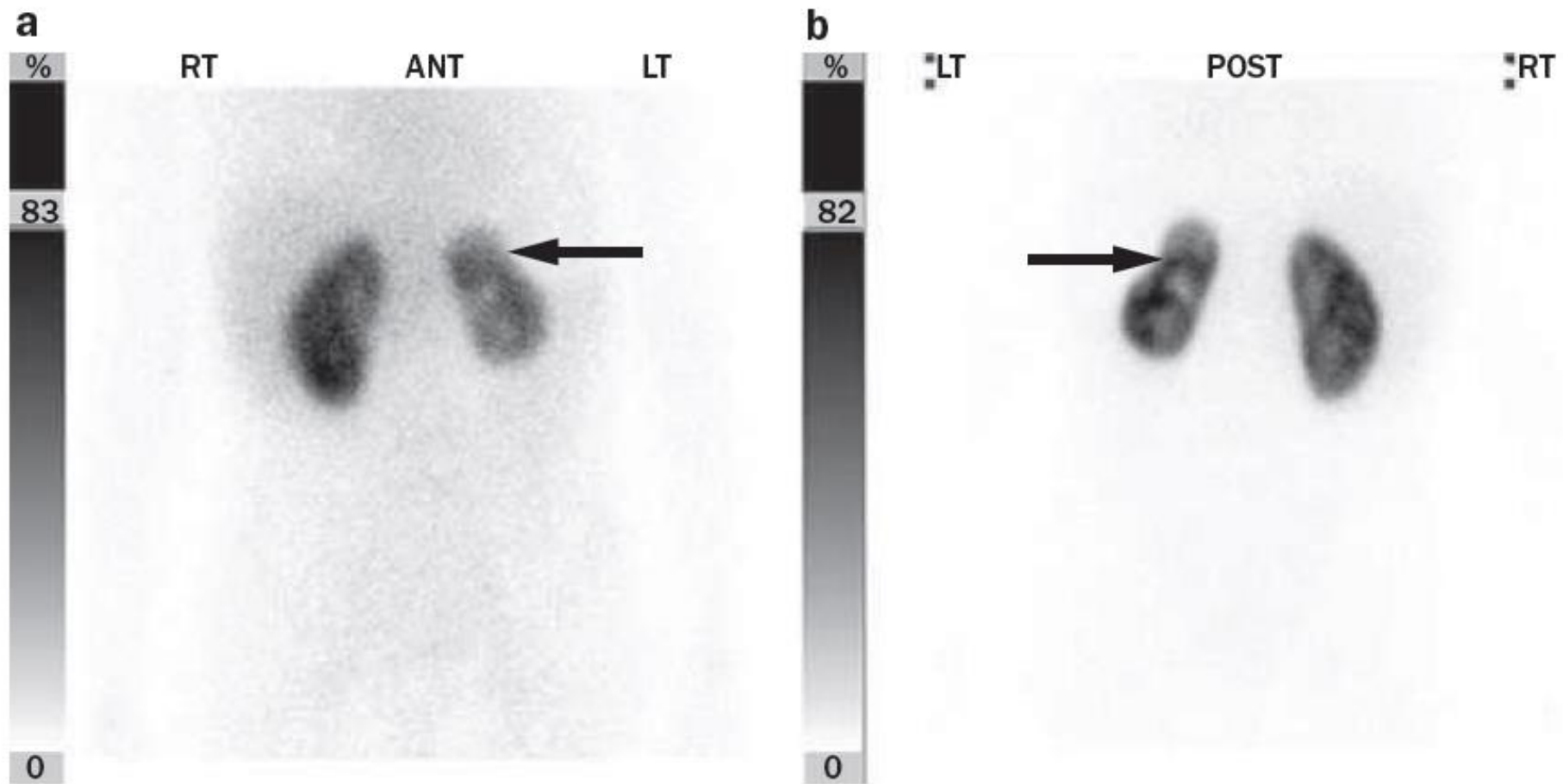
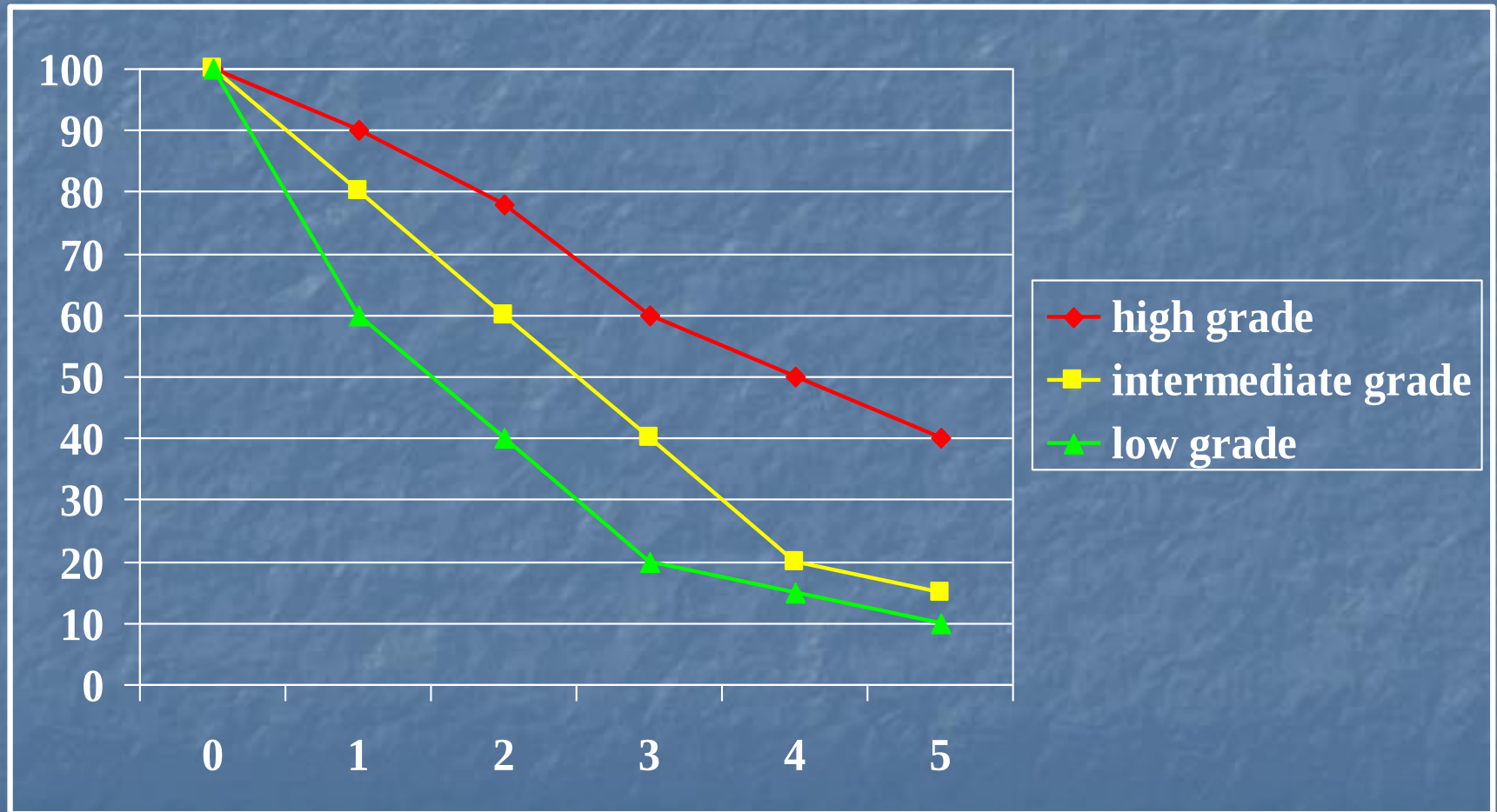


Figure 4 | Dimercaptosuccinic acid scintigraphy with single photon emission computed tomography imaging demonstrating a cortical defect in the upper pole of the left kidney.

Reflux has high spontaneous resolution rate



Contents of:



Urine

0.05% Ammonia
0.18% Sulphate
0.12% Phosphate
0.6% Chloride
0.01% Magnesium
0.015% Calcium
0.6% Potassium
0.1% Sodium
0.1% Creatinine
0.03% Uric acid
2% Urea

95% Water

İdrar tetkiki niçin yapılır?

- Genel sağlık değerlendirmesi
- Böbrek ve üriner sistem hastalık tanısı
- Böbreği etkileyen sistemik hastalıkların tanısı
- Diyabetik hasta takibi
- Uygunsuz ilaç kullanımı (steroid, aminoglikozit, sulfonamid)

İdrar örneği toplama

- Sabah ilk idrar (en sıklıkla yapılan)
- Rastgele idrar alınması (acil durumlarda)
- Temiz orta akım idrarı (idrar kültürü için)

DİKKAT:

İdrar 1 saat içinde tetkik edilmeli

İdrar içeriği

- Fiziksel

- Görünüm, volüm, spesifik dansite

- Kimyasal

- pH, protein, glukoz, keton, gizli kan, bilirubin, ürobilinojen, nitrit

- Mikroskopik

- Lökosit, eritrosit, silendir, kristaller

Renk

- Kırmızı
 - Hematüri, hemoglobinüri, miyoglobininüri
- Sarı-Kahverengi, Koyu kahve rengi
 - Bilirubin (tıkayıcı sarılık)

Psödohematüri

- Miyoglobininüri
- Hemoglobininüri
- Fenolftalein
- Fenotiazin
- Porfiri
- Rifampisin
- Bilirubinüri
- Fenitoin, piridinyum
- Yiyecekler (pancar, böğürtlen)

Bulanık idrar

- Kristaller
- Alkali idrarda non-patolojik fosfat ve karbonat
 - asetik asit ilavesiyle kaybolur
- Ürik asit
 - Isıtılınca kaybolur
- Hücresel elementler
 - Lökositler, eritrositler, epitel hücreleri

- Poliüri:

- DM

- DI

- Oligüri

- $<400 \text{ ml/m}^2$

İdrar dansitesi (1001-1040 arası)

- Dansite artışı
 - Dehidratasyon (ateş, kusma, ishal)
 - DM
 - Konjestif kalp yetmezliği
 - SIADH
 - Adrenal yetmezlik
- Dansite azalması
 - Dİ (volum fazla, dansite düşük)

İdrar pH

- Normalde diyetle ilgili olarak 5-9 arası
- Yüksek pH- Alkali idrar
 - İlaçlar, Sodyum bikarbonat
 - RTA
 - Alkaloz (metabolik ve solunumsal)
- Düşük pH
 - Amonyum klorür
 - Asidoz (metabolik veya solunumsal)

İdrarda glukoz

- Hiperglisemi
 - DM
 - Cushing sendromu
- Hiperglisemi olmadan
 - Böbrek tübülüs fonksiyon bozukluğu (renal glikozüri)

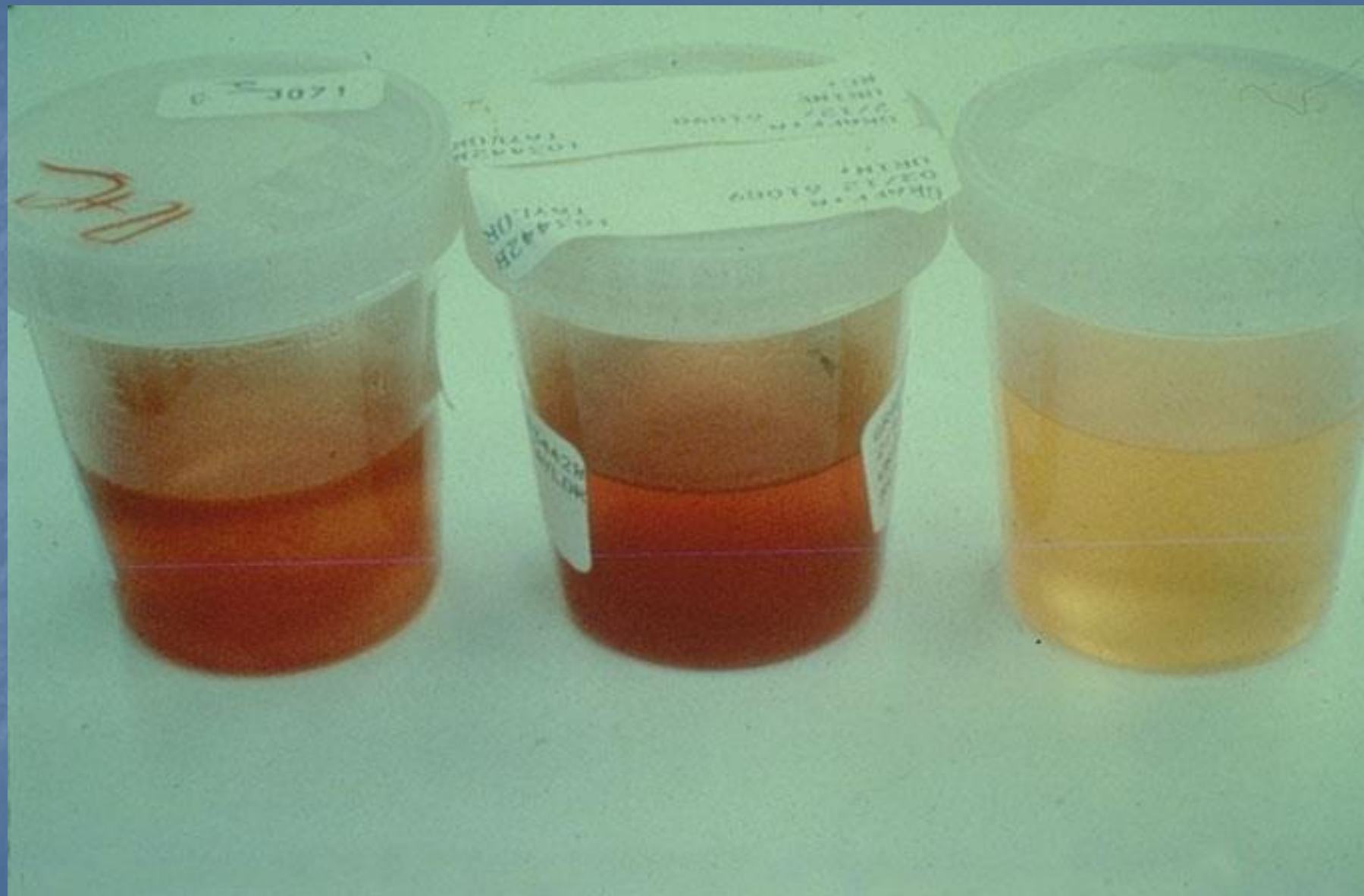
İdrarda keton

- Aseto asetik asit
- Aseton
- Beta-hidroksi butirik asit
- NEDENLER
 - Diabetik
 - Non-diabetik
 - Açlık, kusma ve ishal

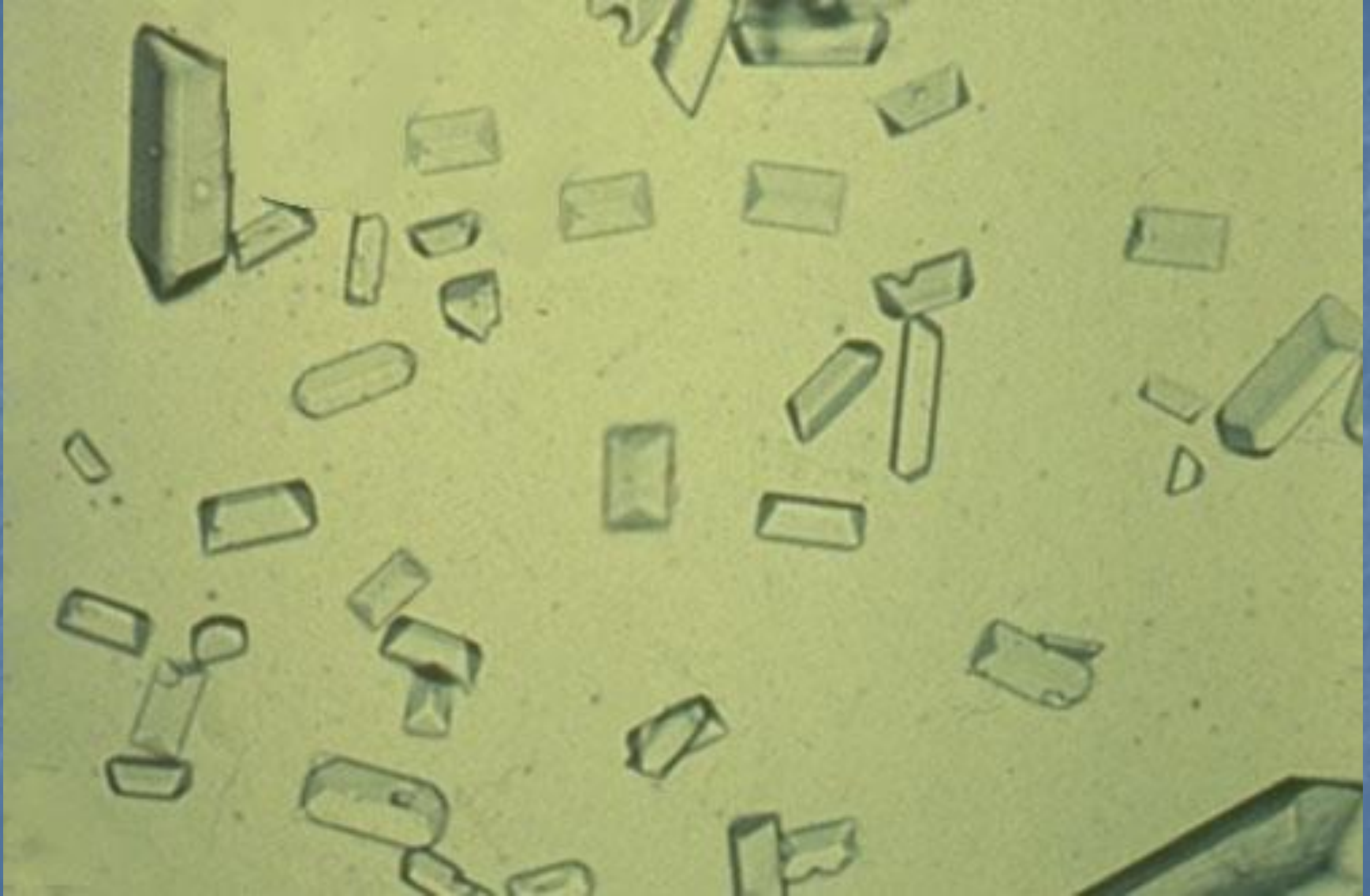
Çocukta 24 saatlik idrar yapma sıklığı

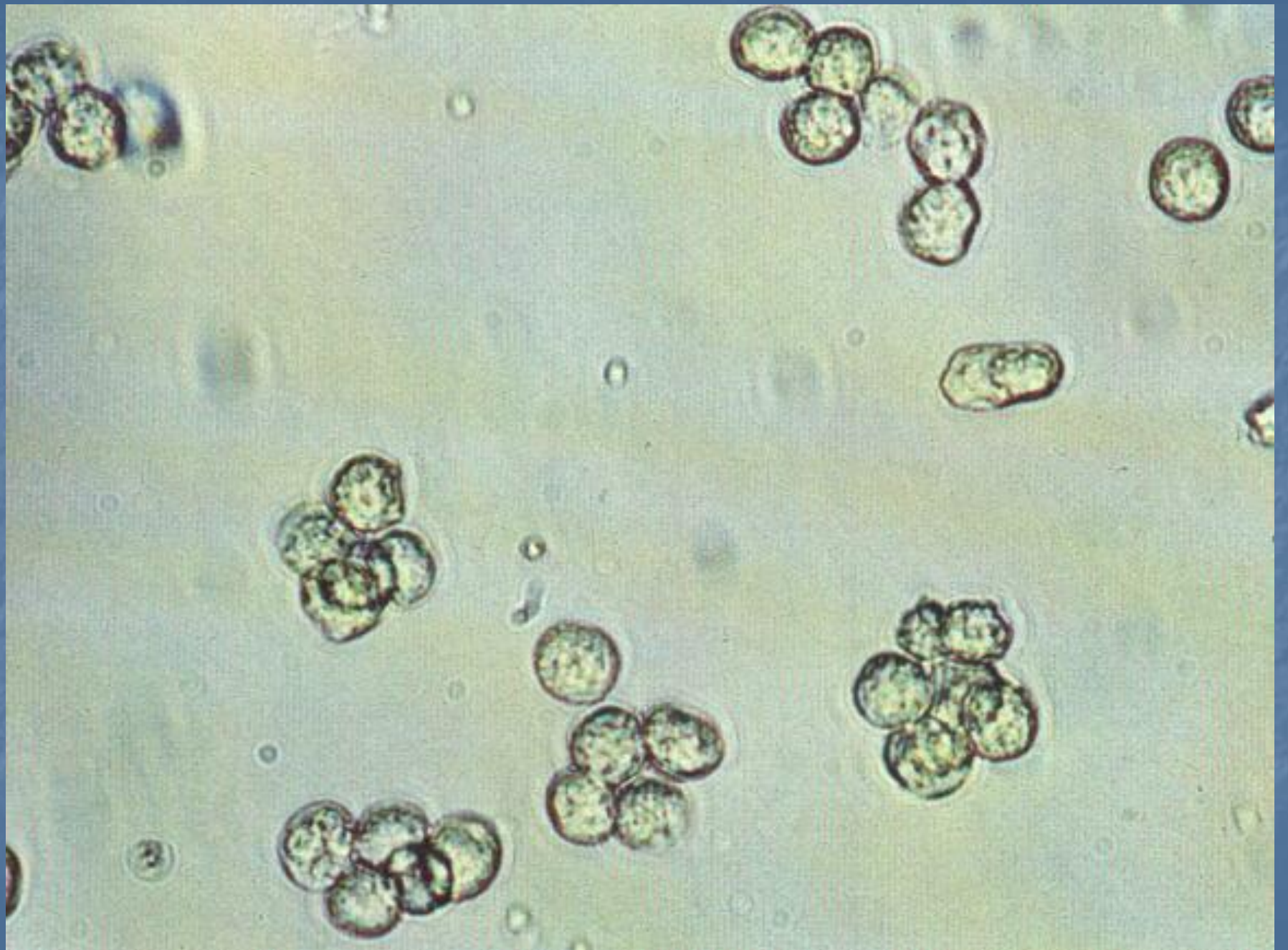
Yaş	Normal Çocuk	Enüretik çocuk
< 6 ay	20	
6-12 ay	16	
12 ay- 2 yıl	12	
2-4 yıl	9	
4-7 yıl	6	8-11
8-10 yıl	4-5	9-10

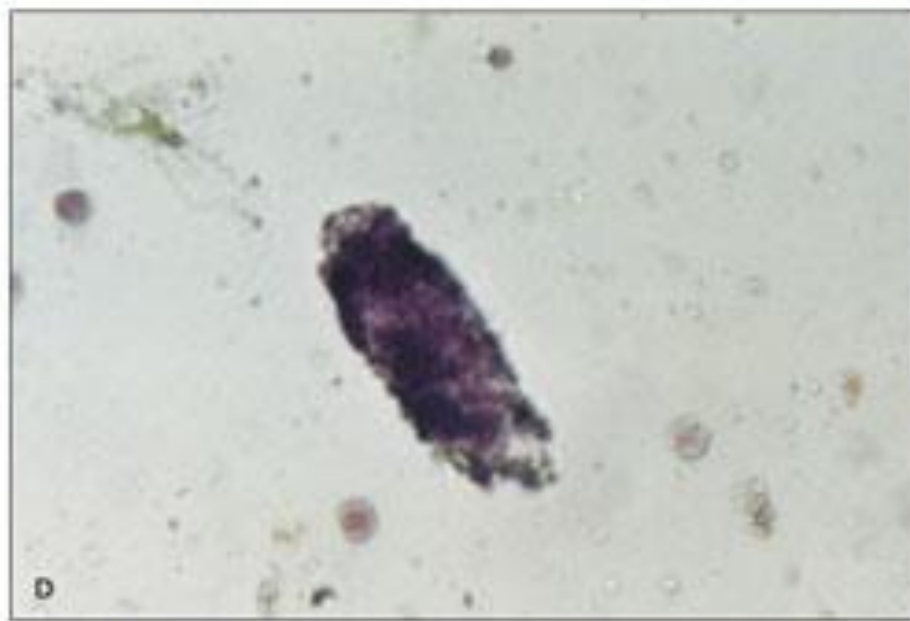
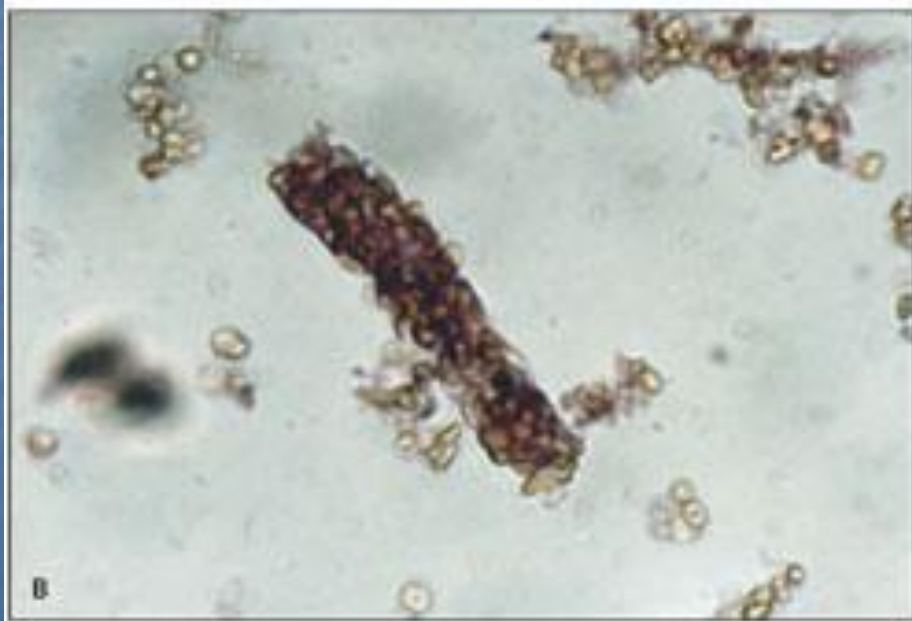
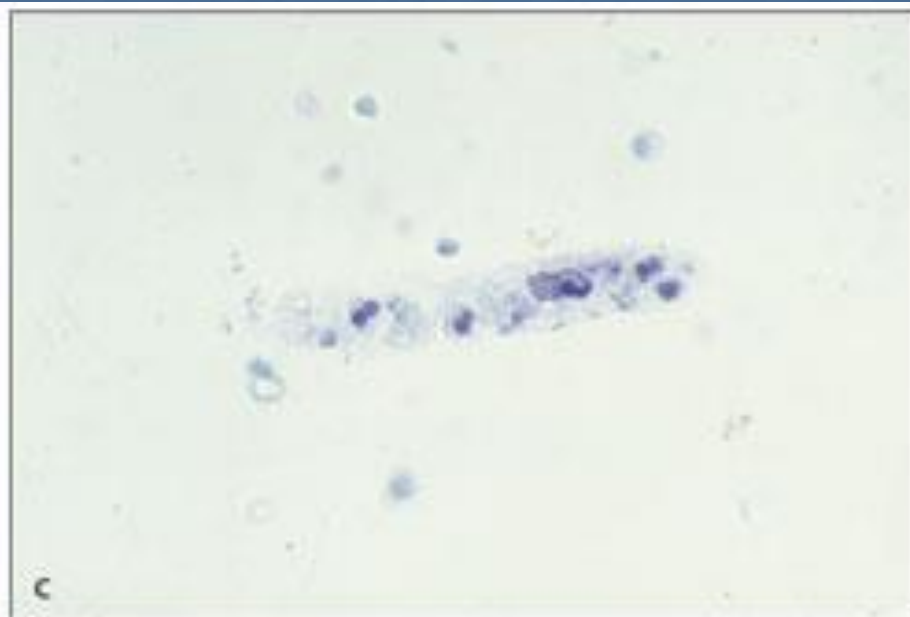
Yaş	Çıkarılan idrar (cc)
Doğum-48 saat	16-60 cc
3-10 gün	100-300 cc
10 gün-2 ay	250-450 cc
2 ay- 1 yıl	400-500 cc
1-3 yıl	500-600 cc
3-5 yıl	600-700 cc
5-8 yıl	650-1000 cc
8-14 yıl	800-1400 cc

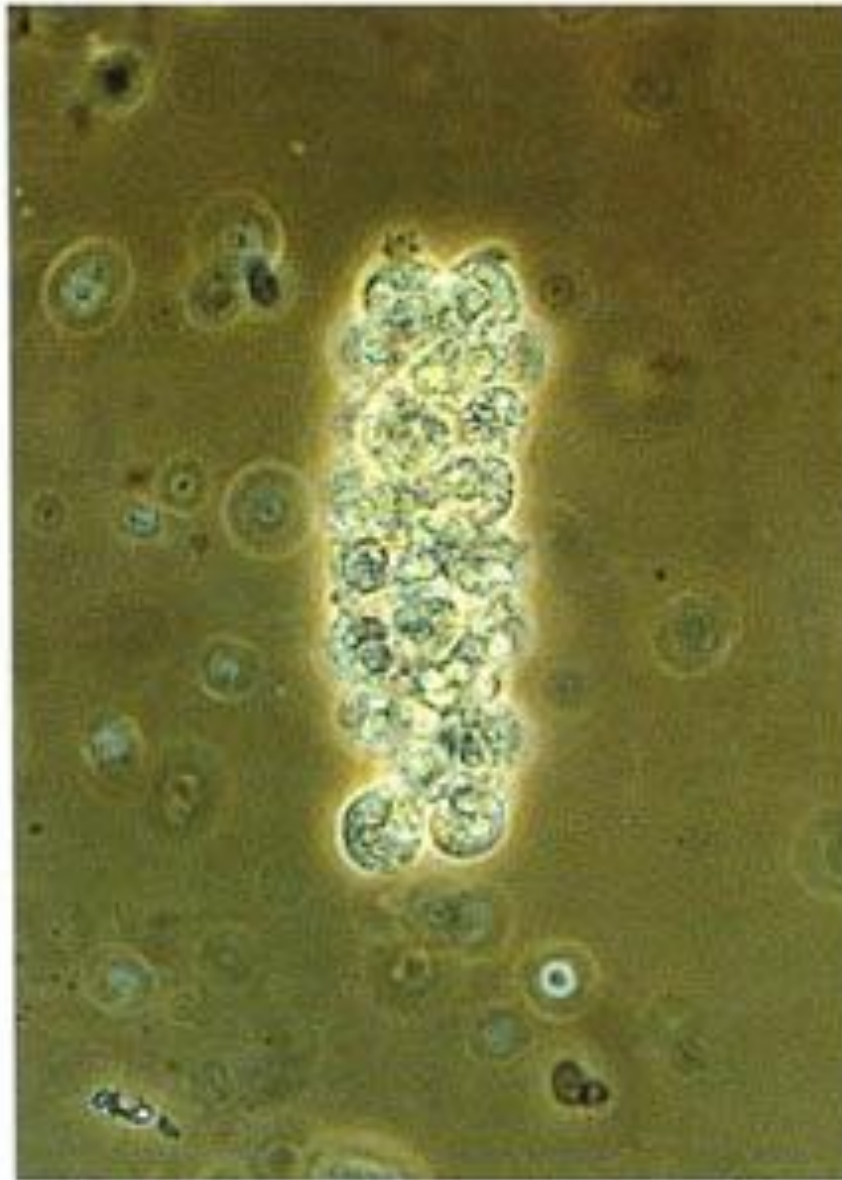


Fosfat kristalleri

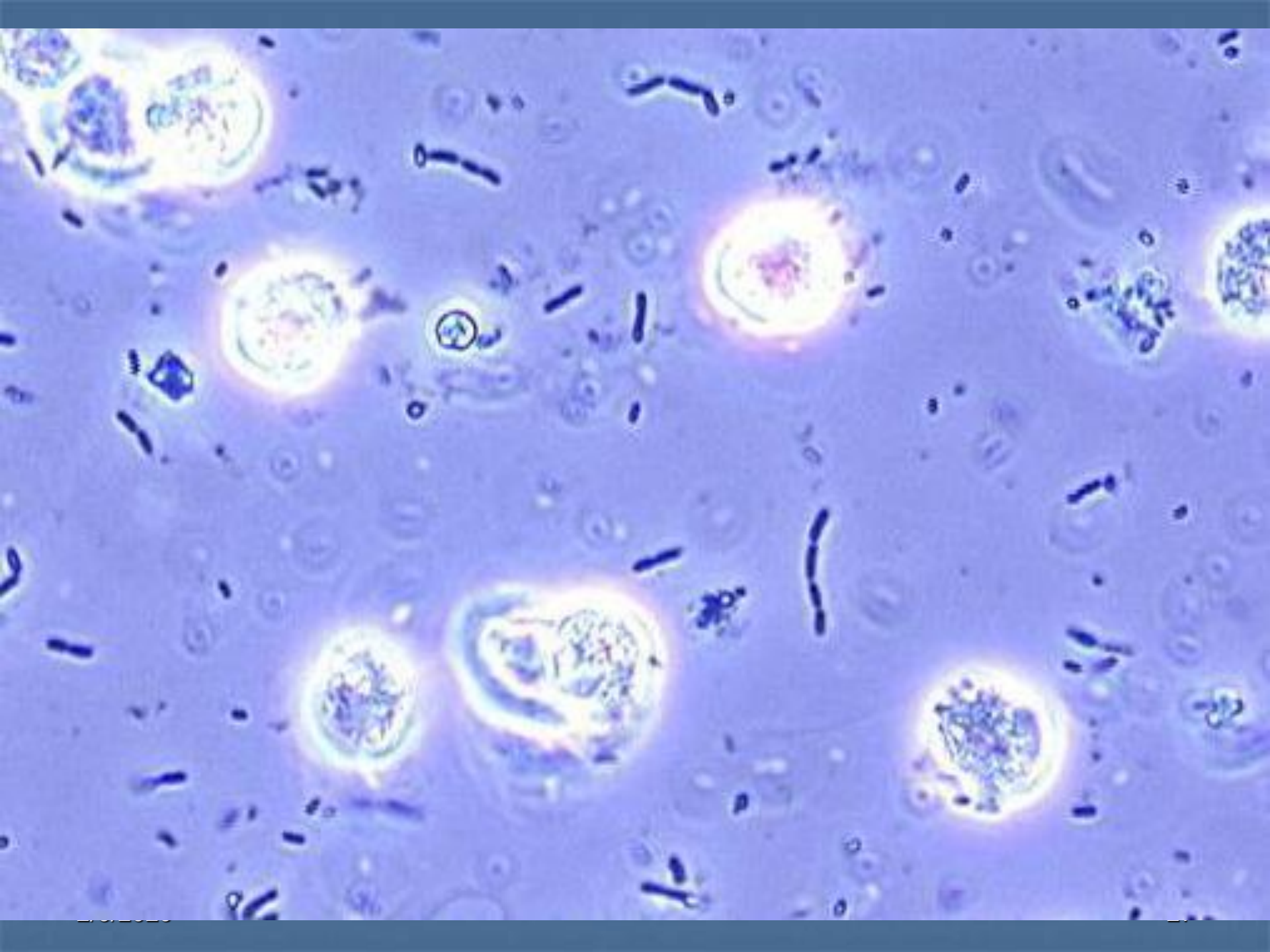


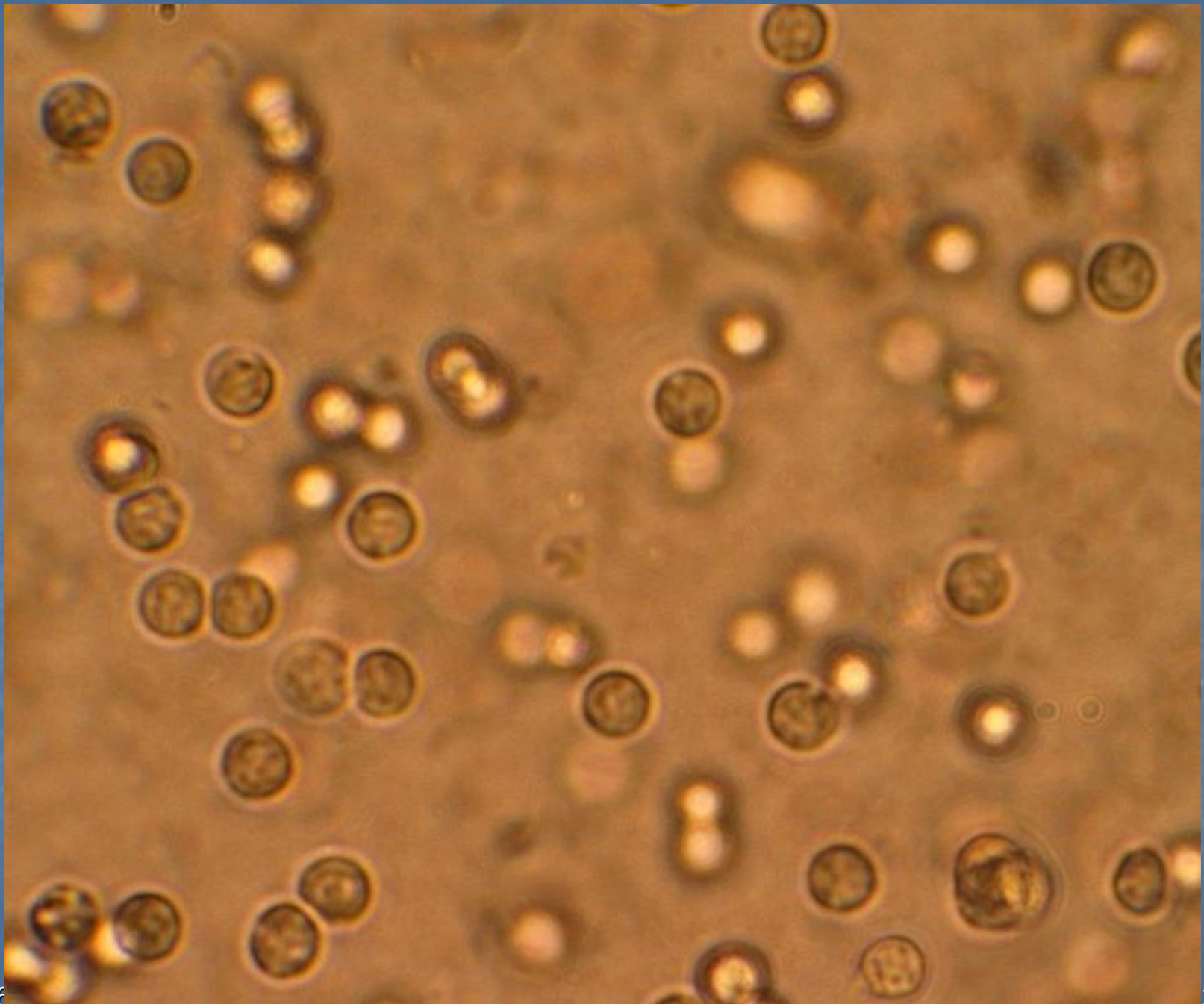


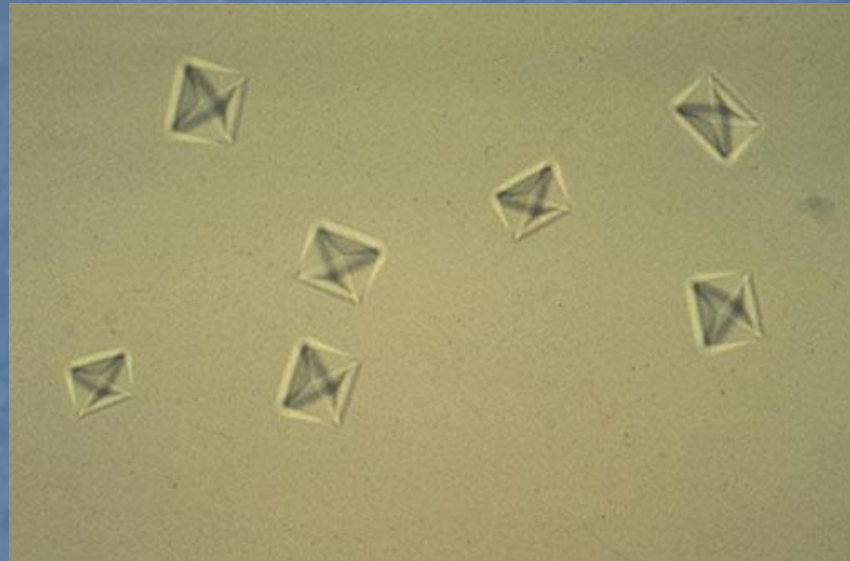


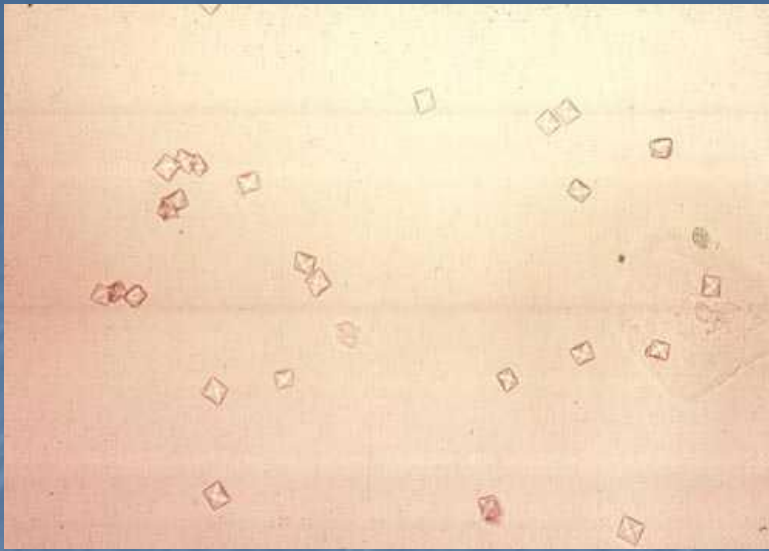


LEUKOCYTE CAST

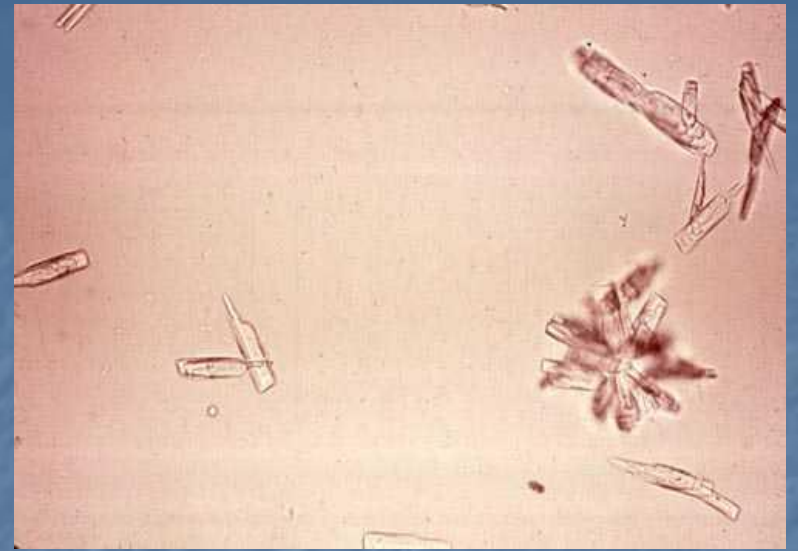




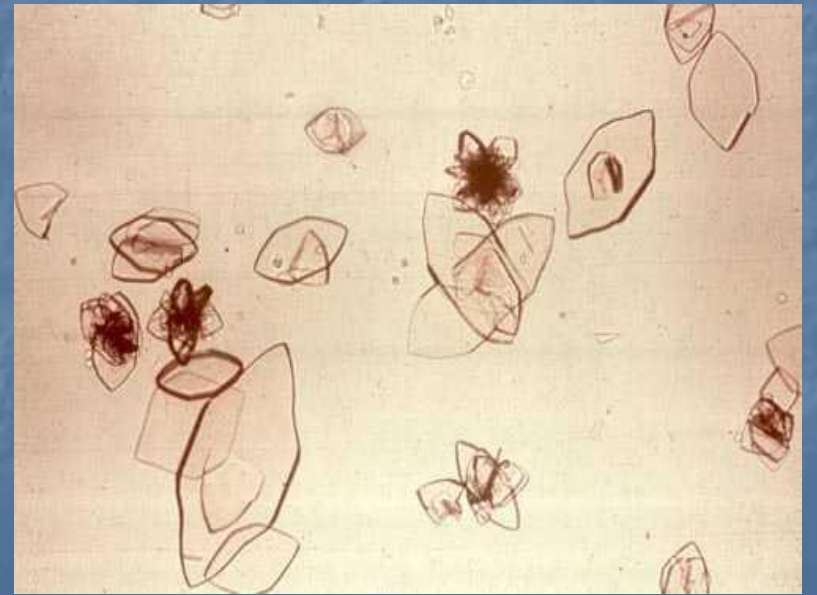
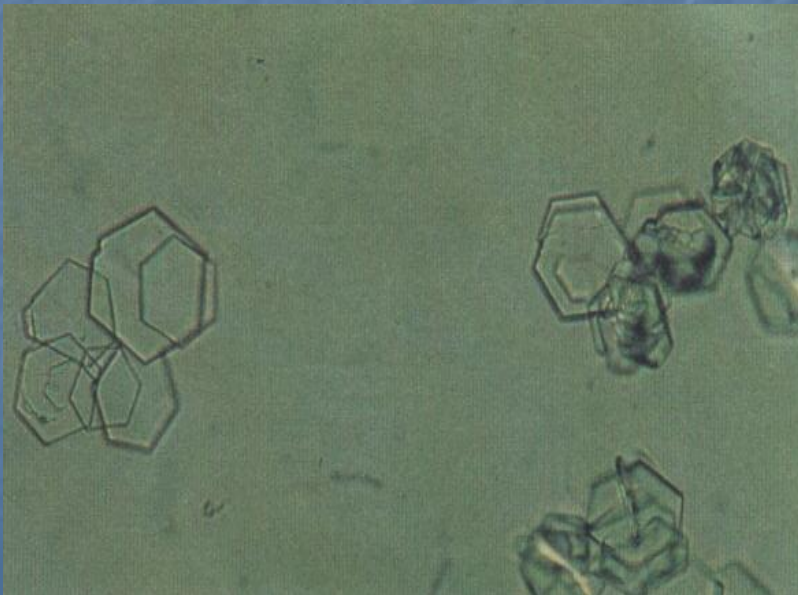


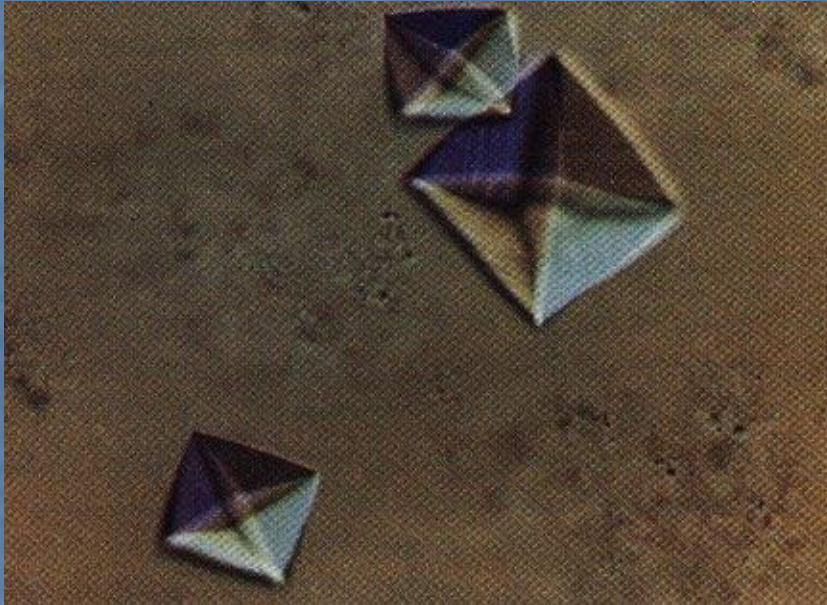


Kalsiyum oksalat

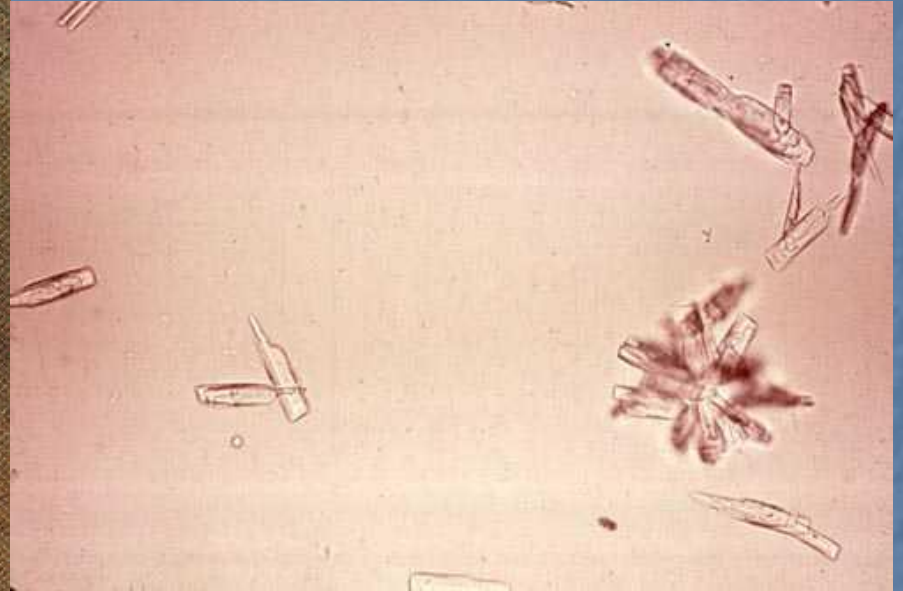


Kalsiyum fosfat





KALSİYUM OKSALAT KRİSTALLERİ



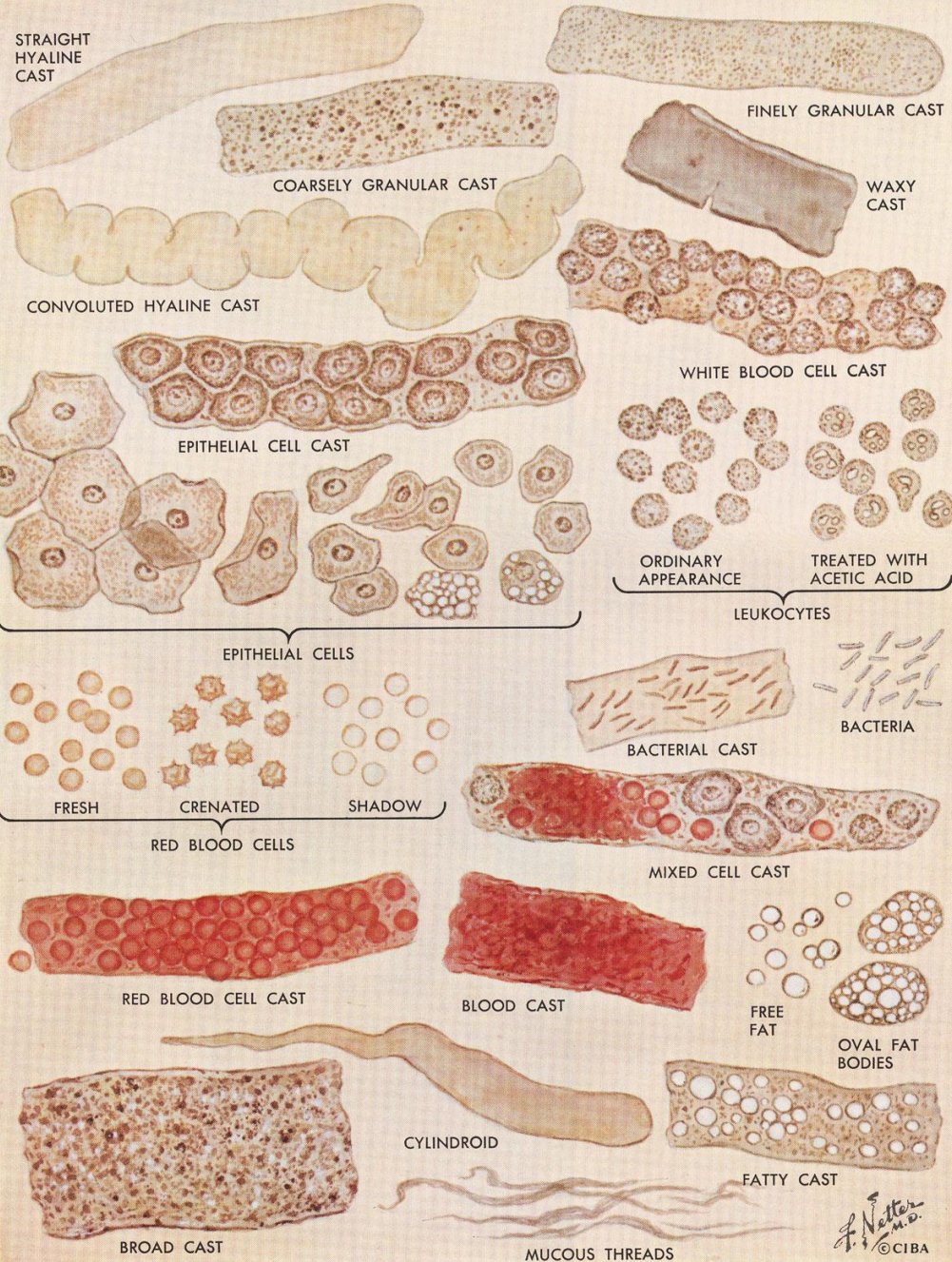
KALSİYUM FOSFAT KRİSTALLERİ

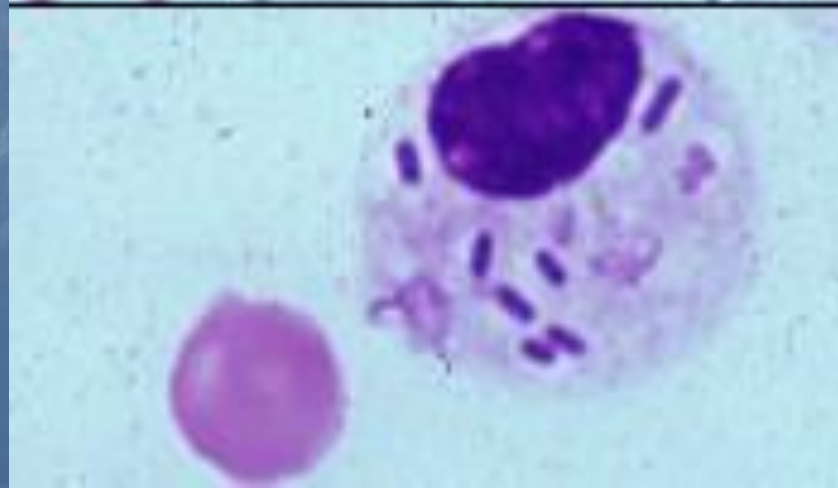
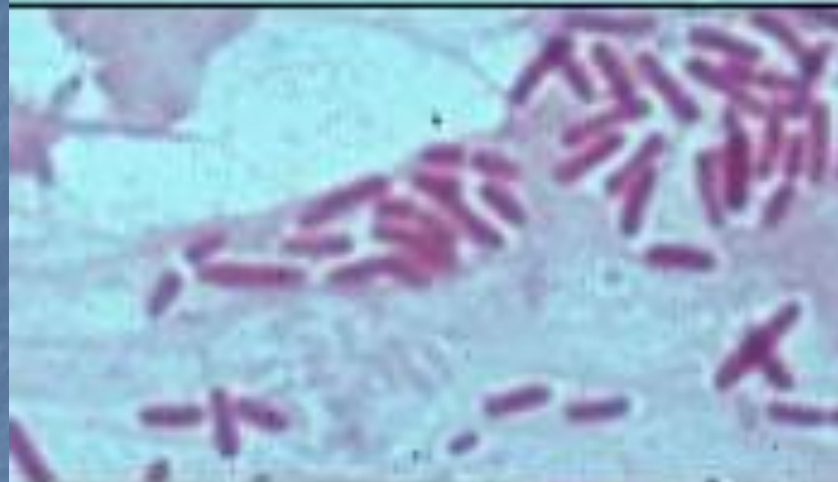


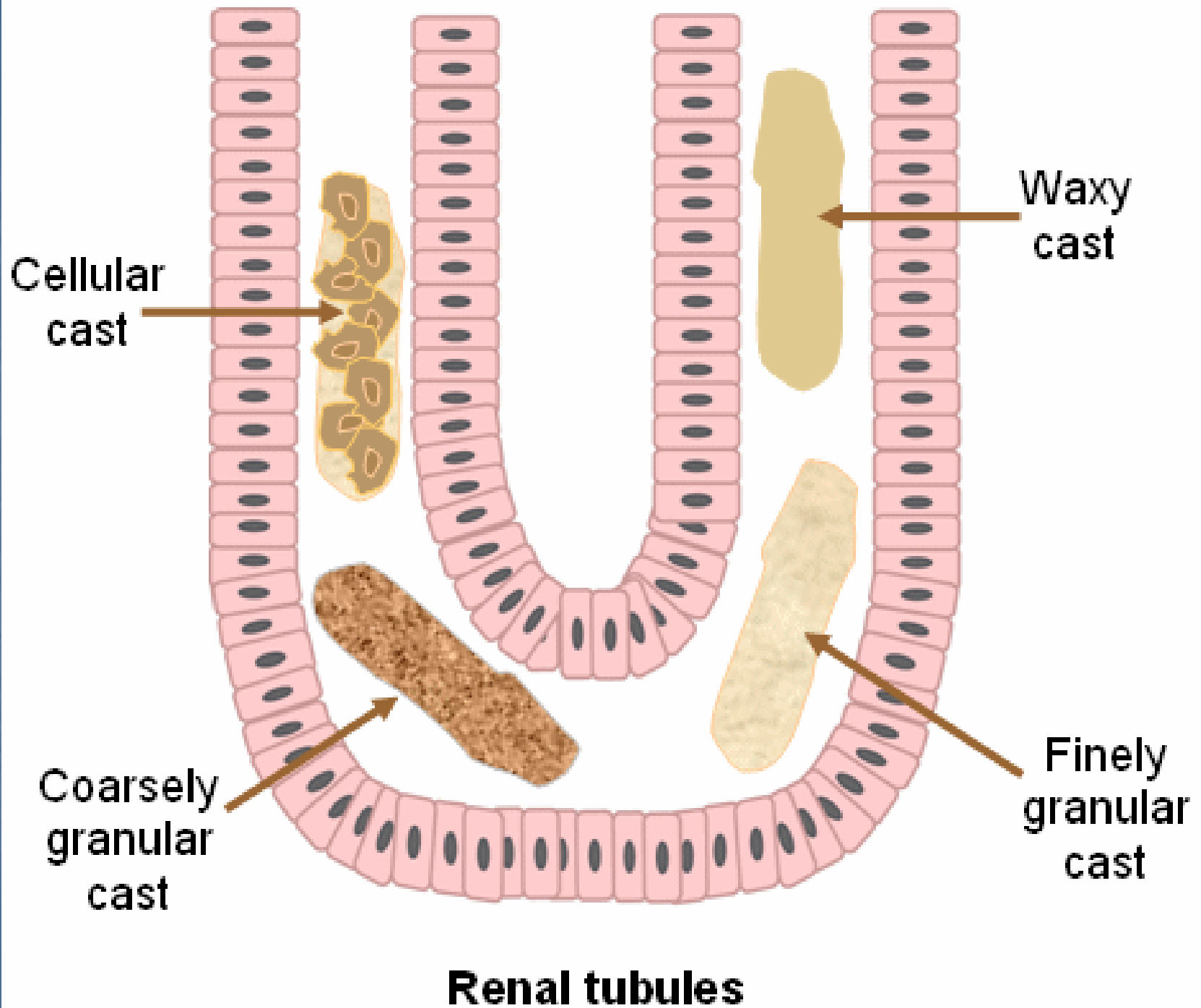
Sistin kristalleri







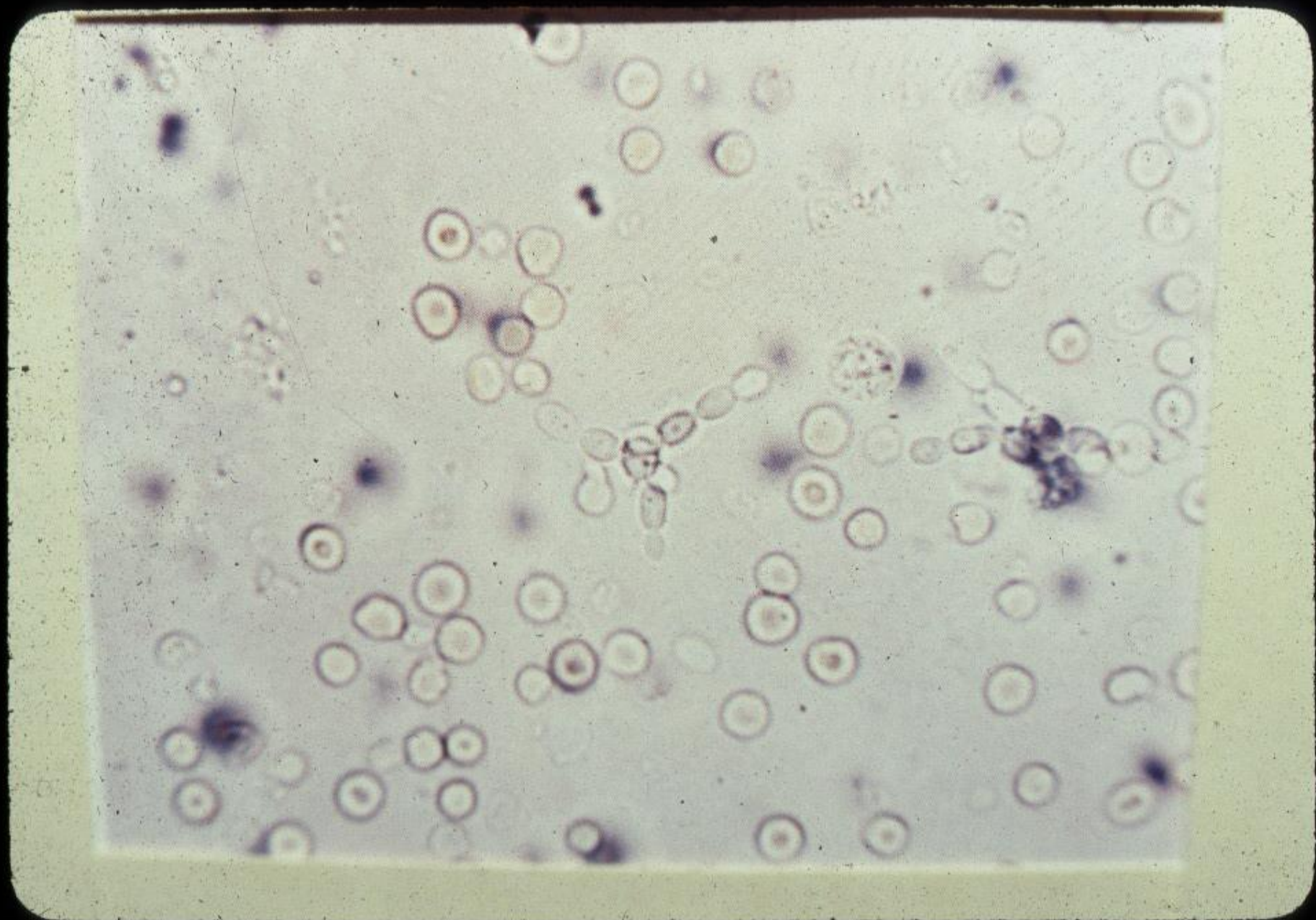






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University of Delaware









22/12/07
00:36 AM
C 3.5 MHz



dnf [F] [R→]

13 Fps

Distance
1.45 cm

Standard



Patient id : [REDACTED]
Doctor : DR. JOE ANTONY
Hospital : ULTRASCAN CENTRE

98 1 98



0

5

10

RT KIDNEY

Qscan

Dist A 24.5mm

Dist B 25.5mm

CINE REVIEW ▶





Nitrite

100 Strips



TESTS AND READING TIME

60 seconds


 100% 50% 25% 0%
 (vary degrees
 of yellow
 pink, cyan)

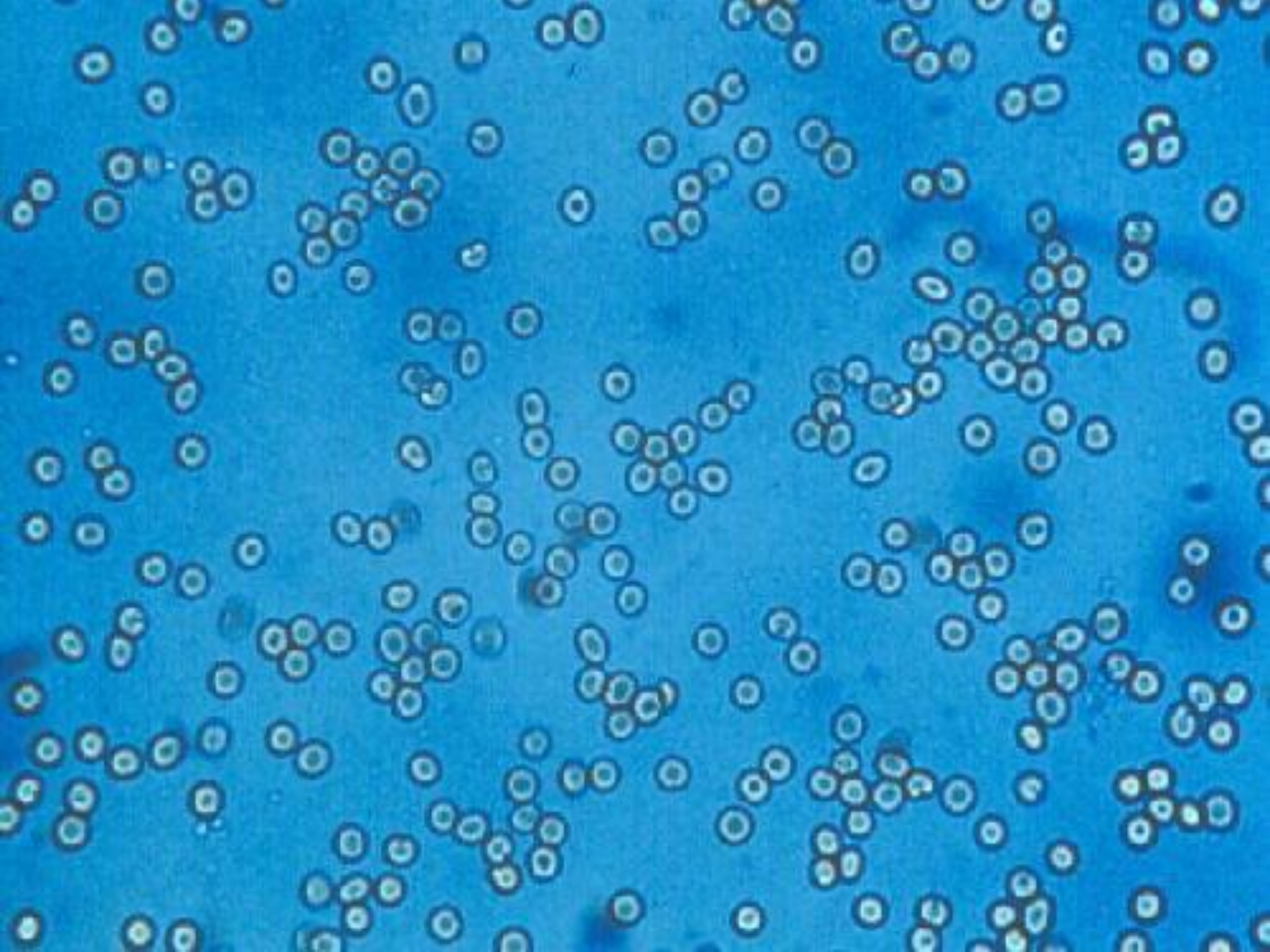
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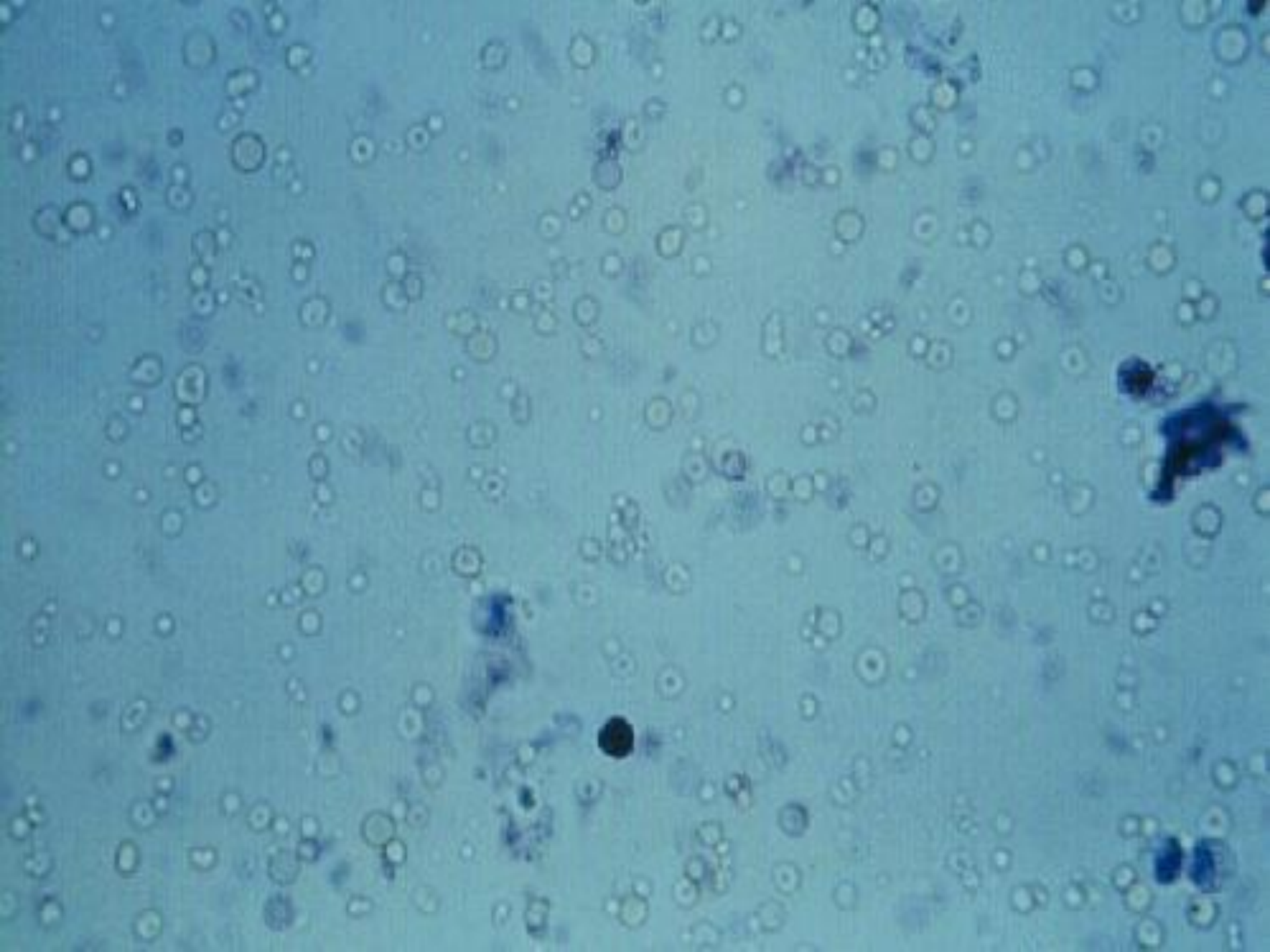
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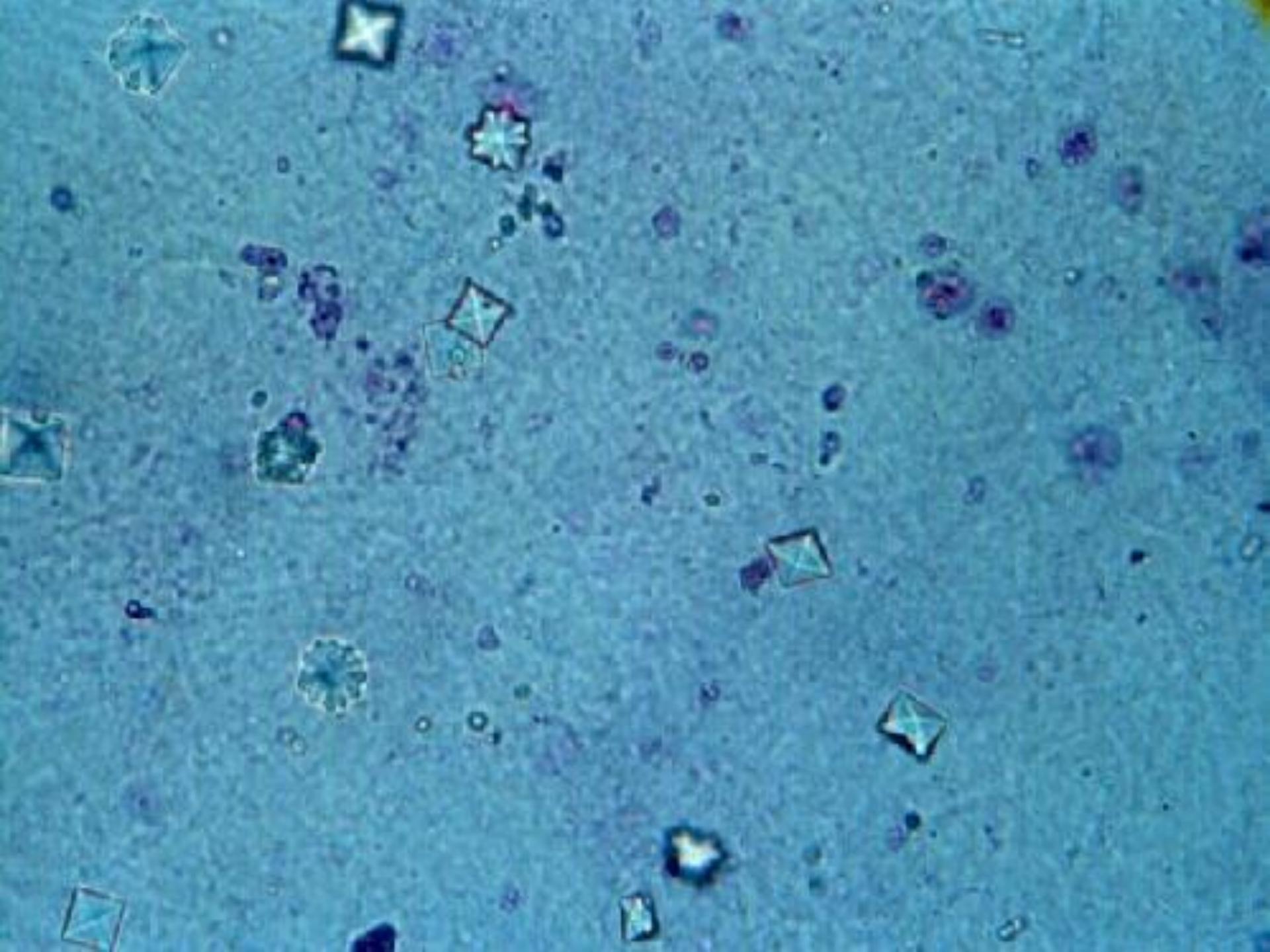
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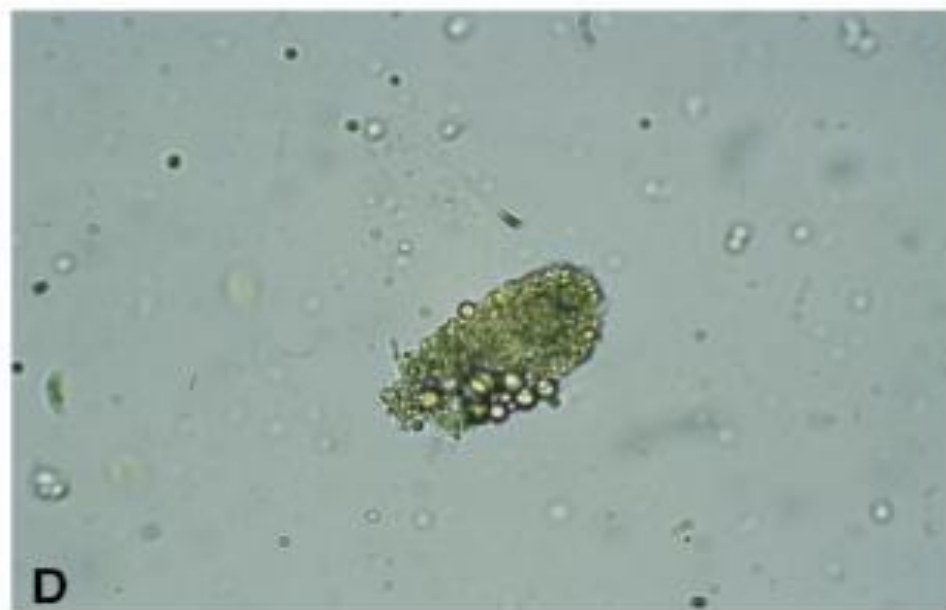
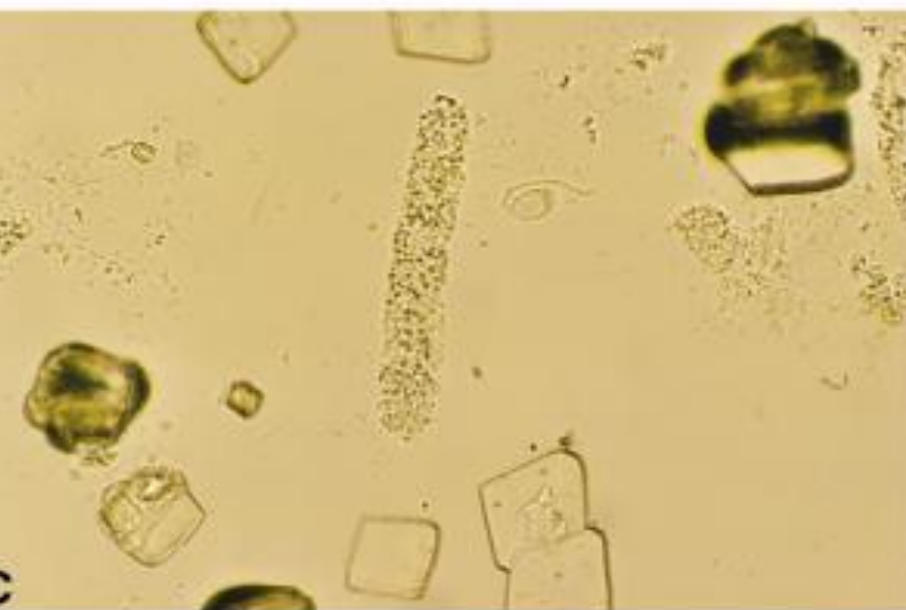
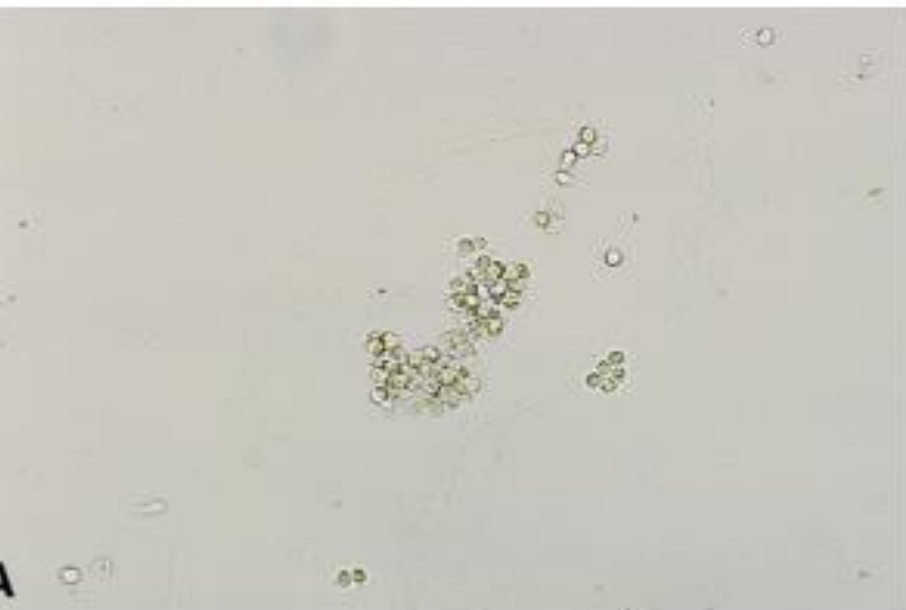
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AG15516C Rev. 10/97 USA

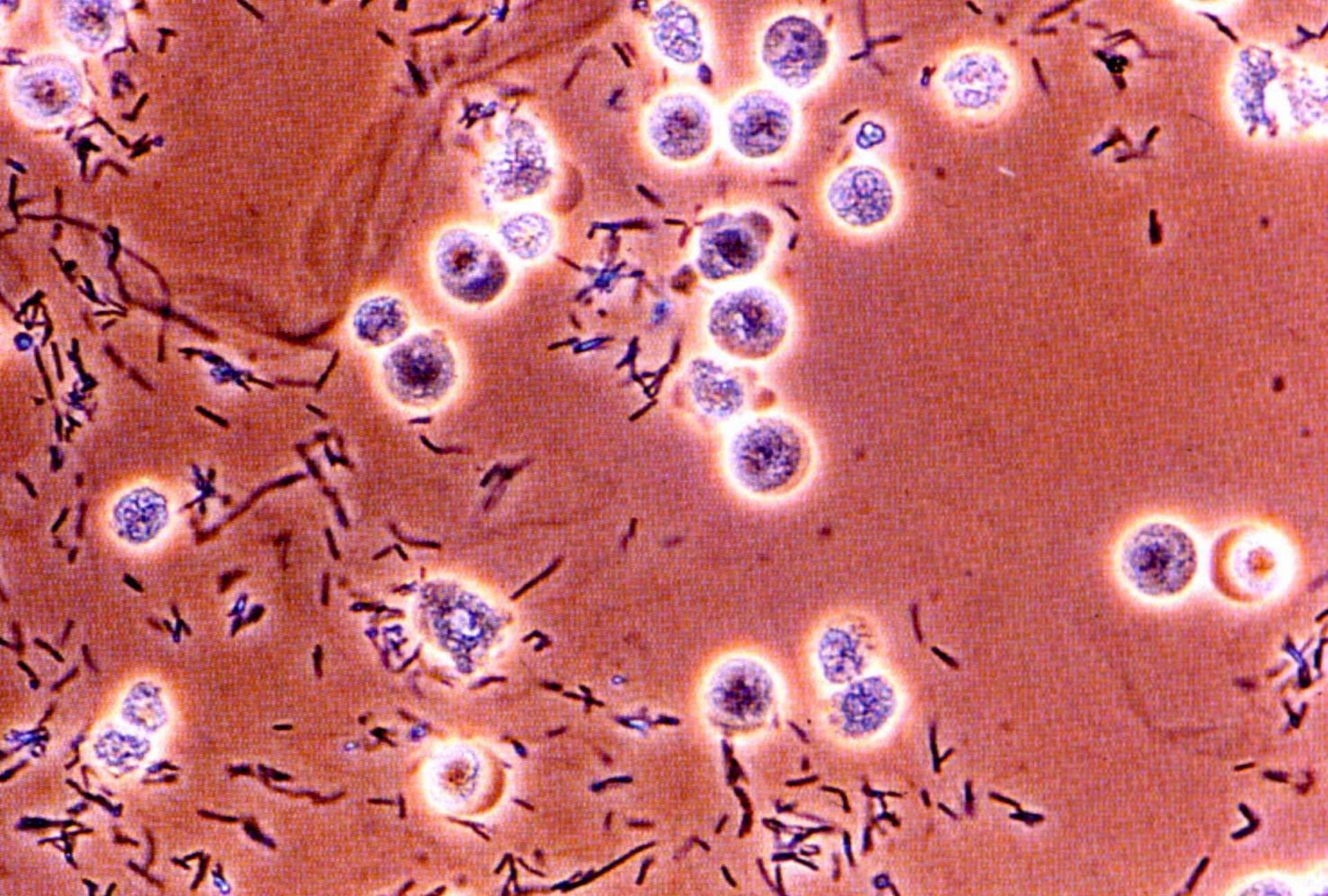




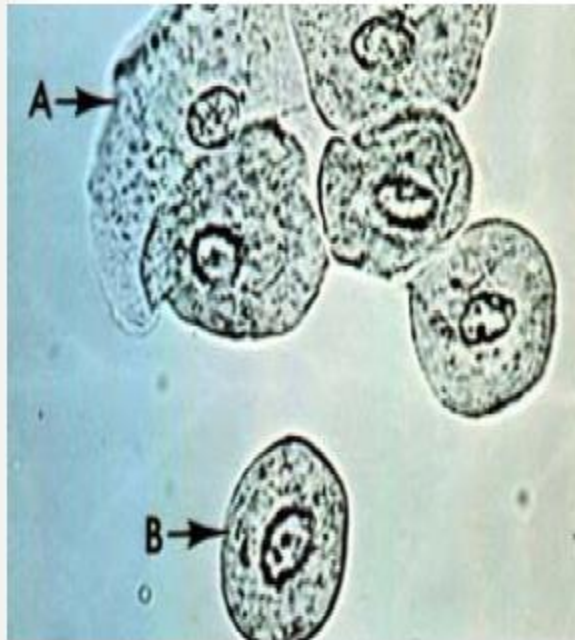




URINE

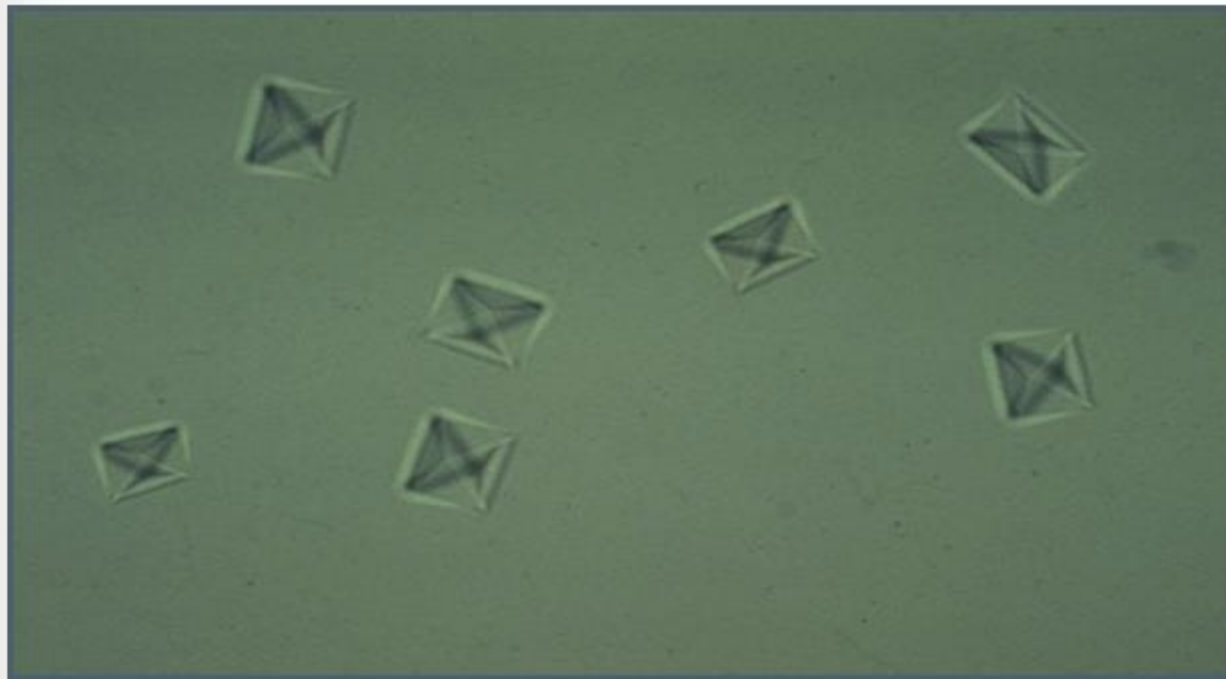


Epithelial Cells



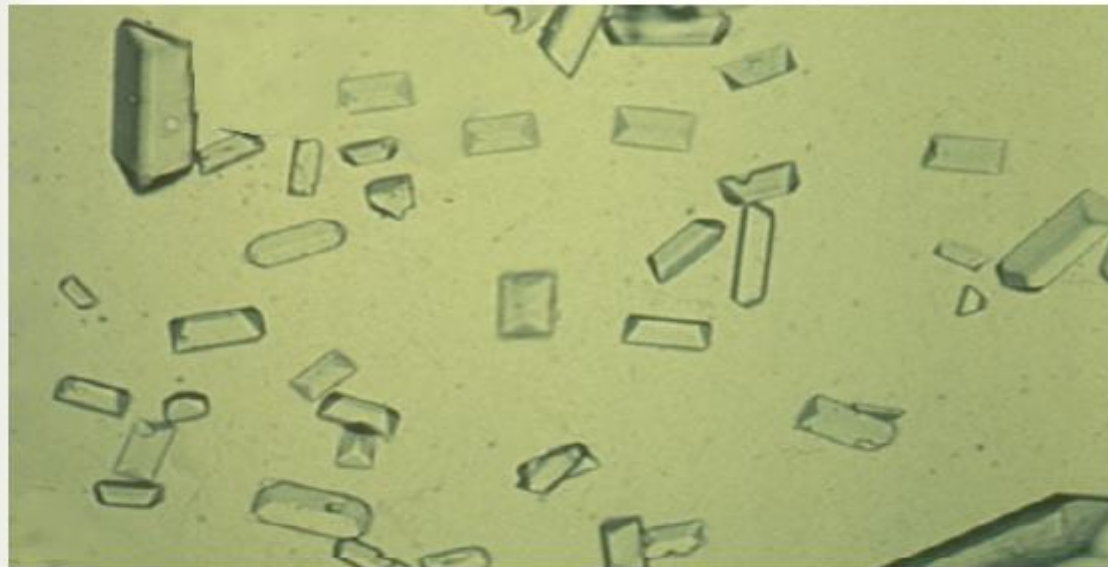
- Squamous (A)
- Transitional
- Renal (B)
 - Active tubular degeneration

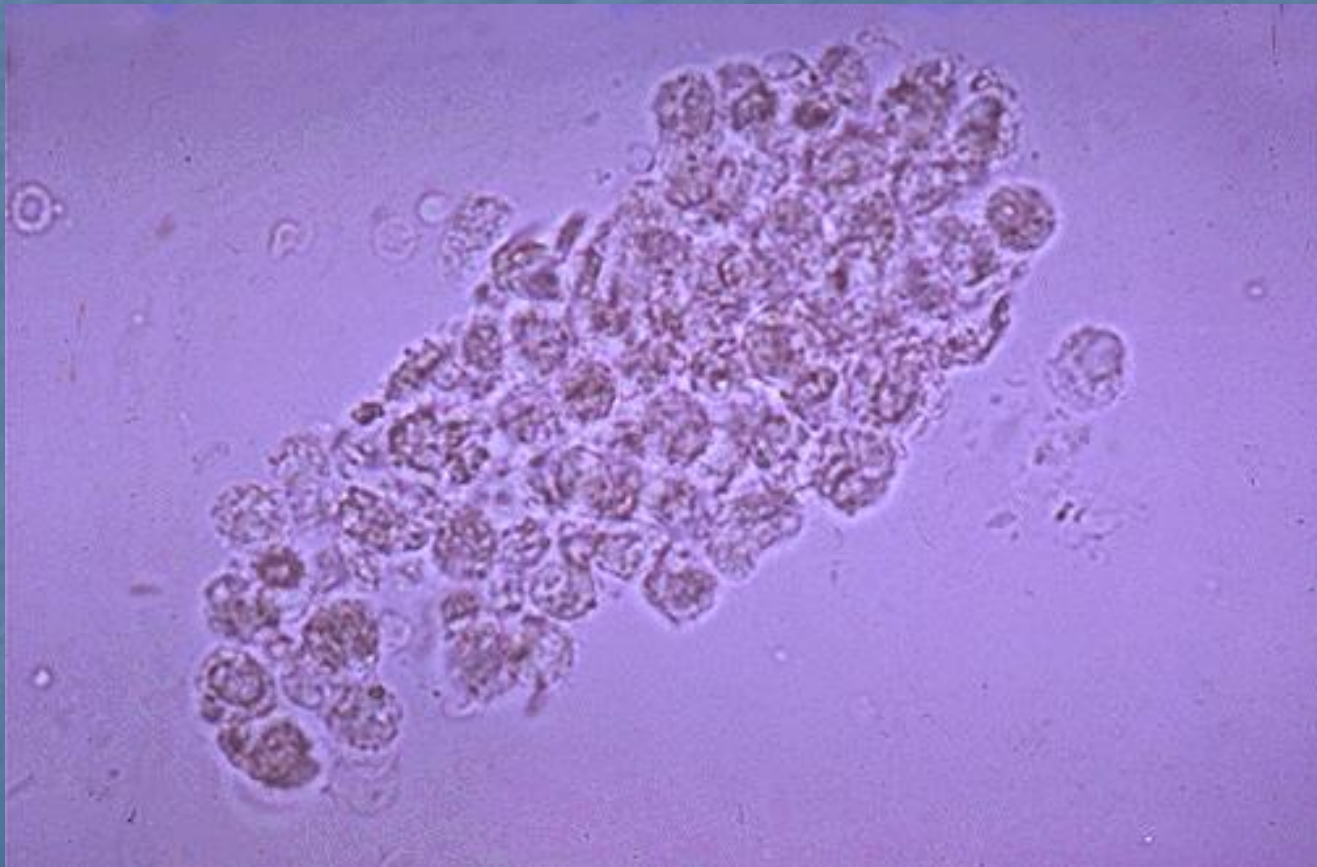
Calcium Oxalate Crystals



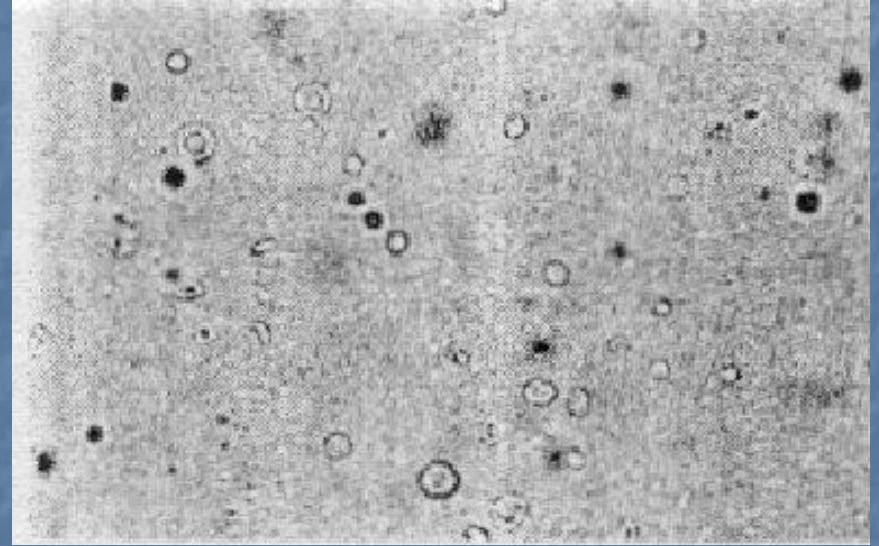
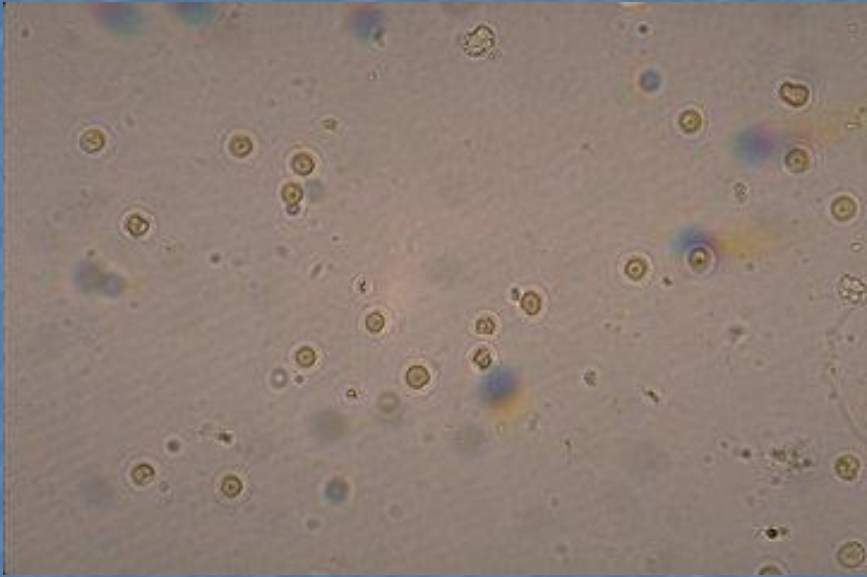


Triple Phosphate Crystals



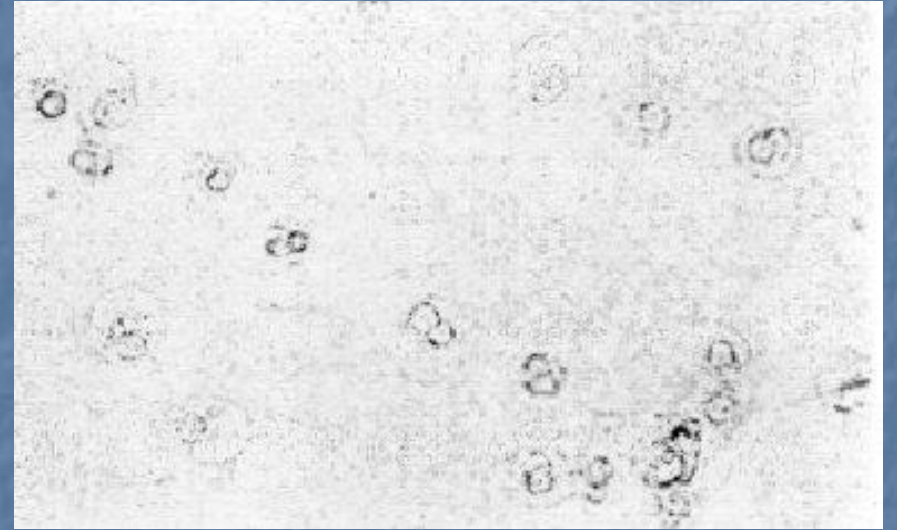
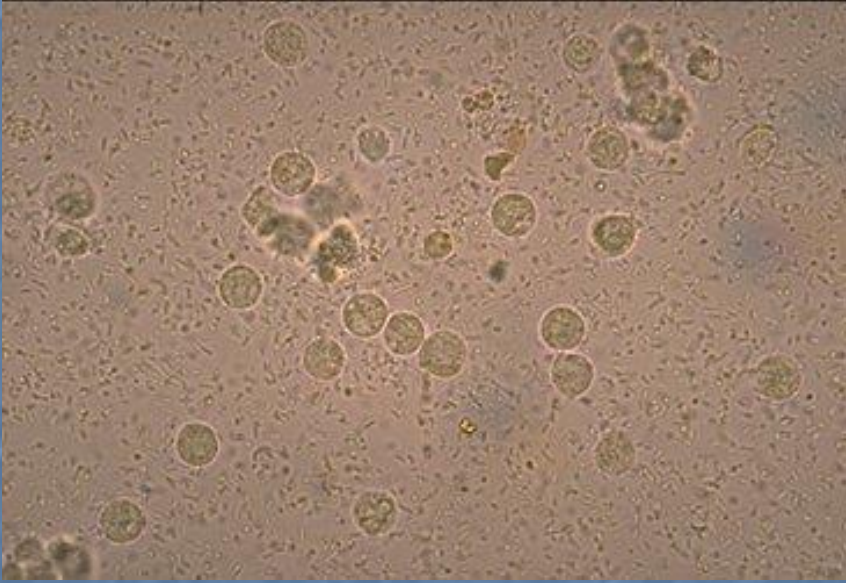


İdrar sedimentinde eritrositler



hematüri

İdrar sedimentinde lökositler

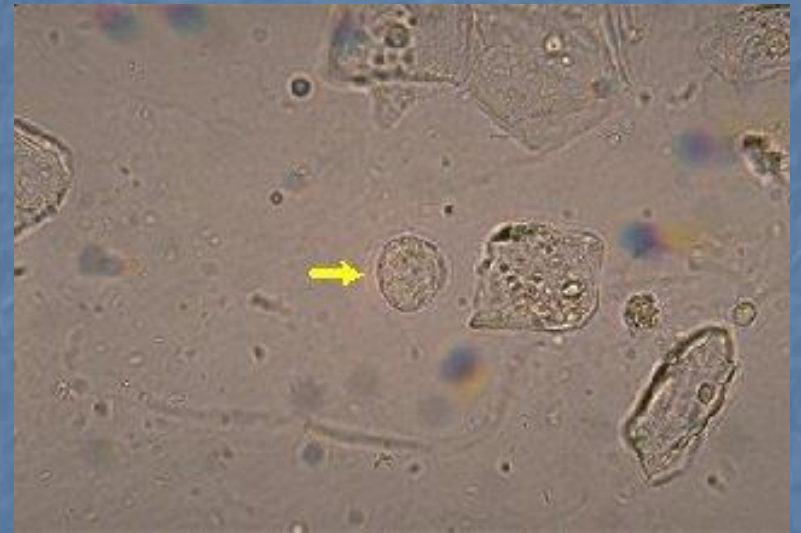


piyüri

İdrar sedimentinde epitel hücreleri



Yassı epitel hücreleri



Böbrek epiteli hücreleri

İdrar sedimentinde silendirler

Hiyalin silendirler

Granüler silendirler

Epiteliyal silendirler

Lökosit silendirleri

Eritrosit silendirleri

Mum silendirler

Dev silendirler

Yağ silendirleri

