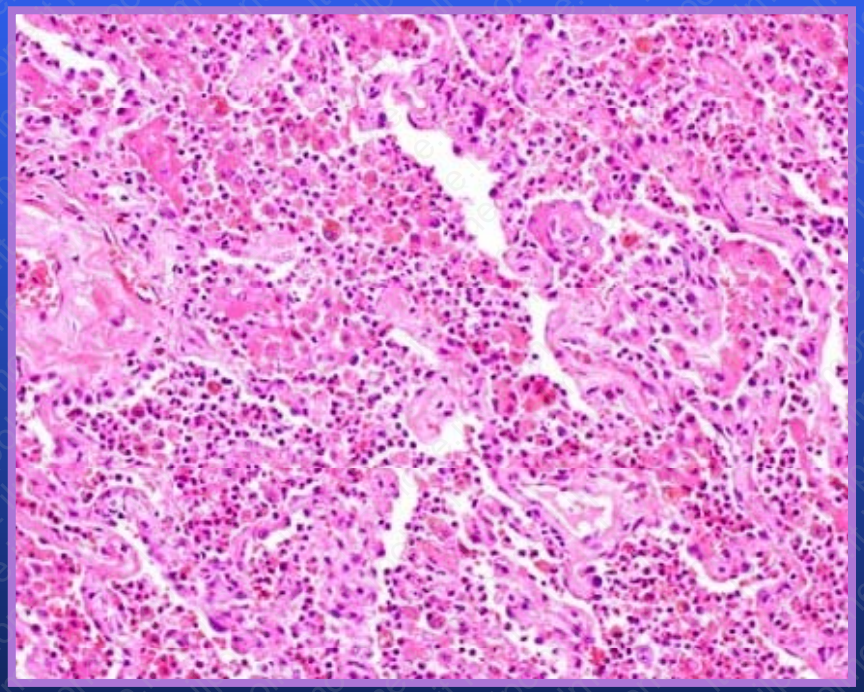
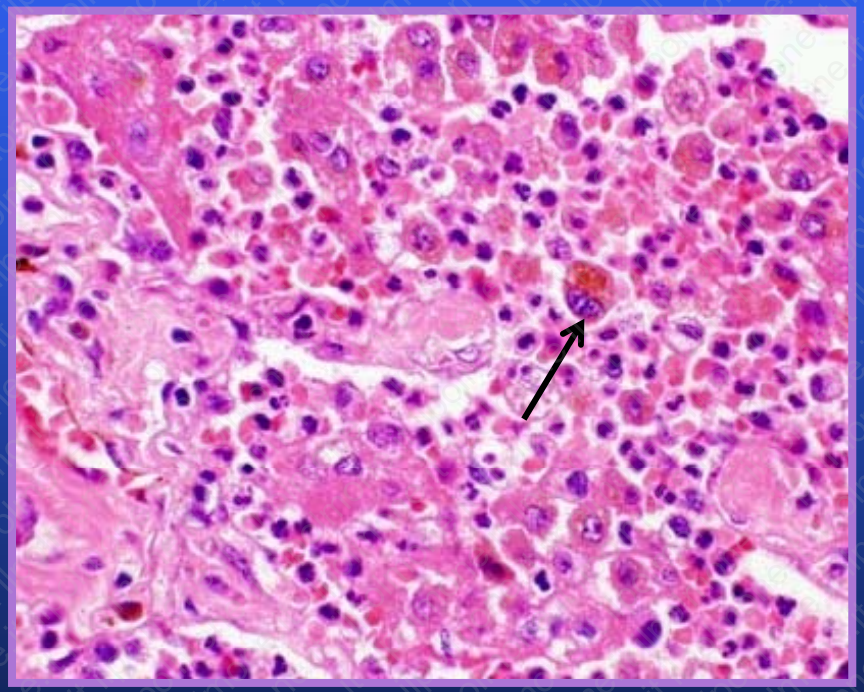
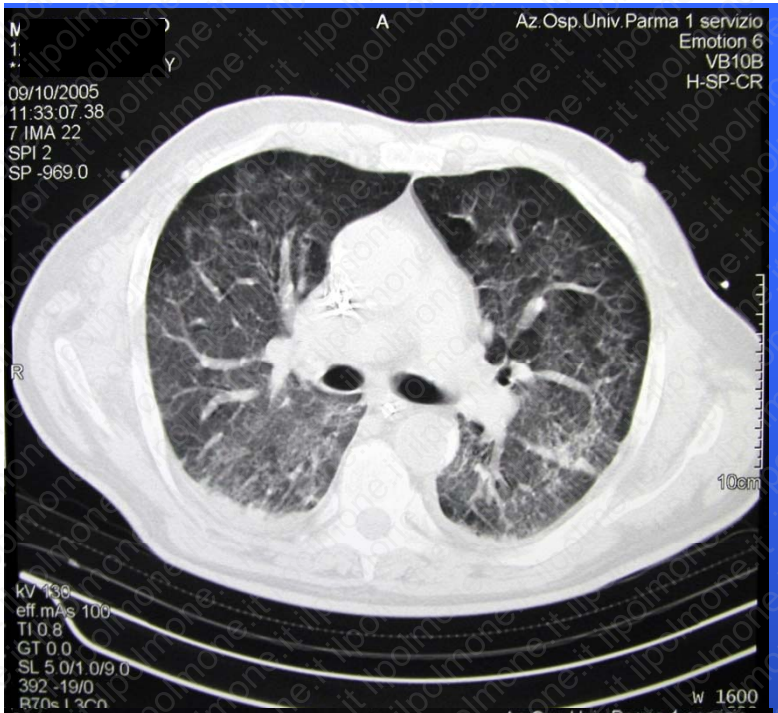
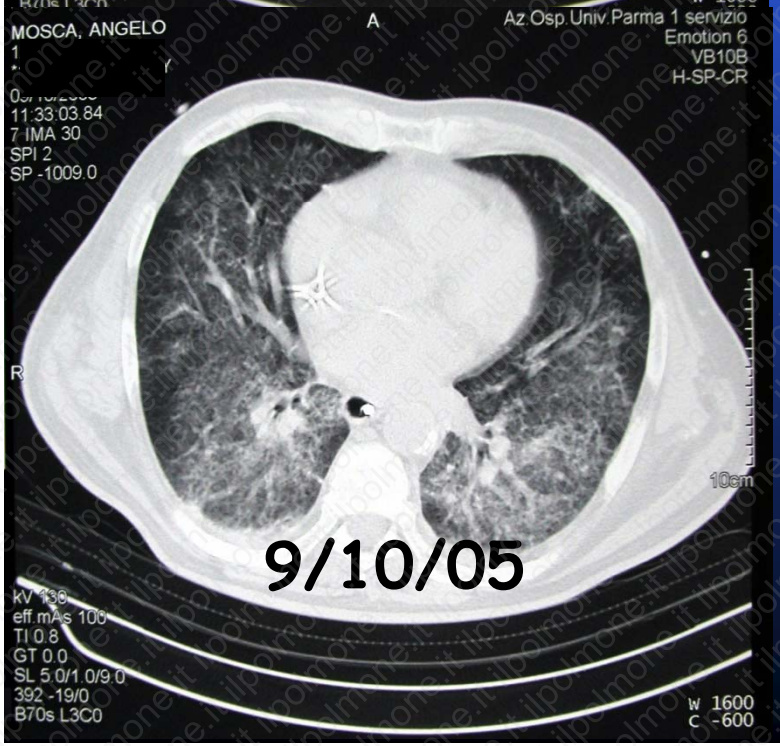
Diffuse Alveolar Haemorrhage





Diffuse alveolar hemorrhage


A
Az.Osp.Univ.Parma 1 servizio
Emotion 6
VB10B
H-SP-CR
09/10/2005
11:33:07.38
7 IMA 22
SPI 2
SP -969.0
R
10cm
kV 130
eff.mAs 100
TI 0.8
GT 0.0
SL 5.0/1.0/9.0
392 -19/0
B70s L3C0
W 1600


MOSCA, ANGELO
1
A
Az.Osp.Univ.Parma 1 servizio
Emotion 6
VB10B
H-SP-CR
11:33:03.84
7 IMA 30
SPI 2
SP -1009.0
R
10cm
9/10/05
kV 130
eff.mAs 100
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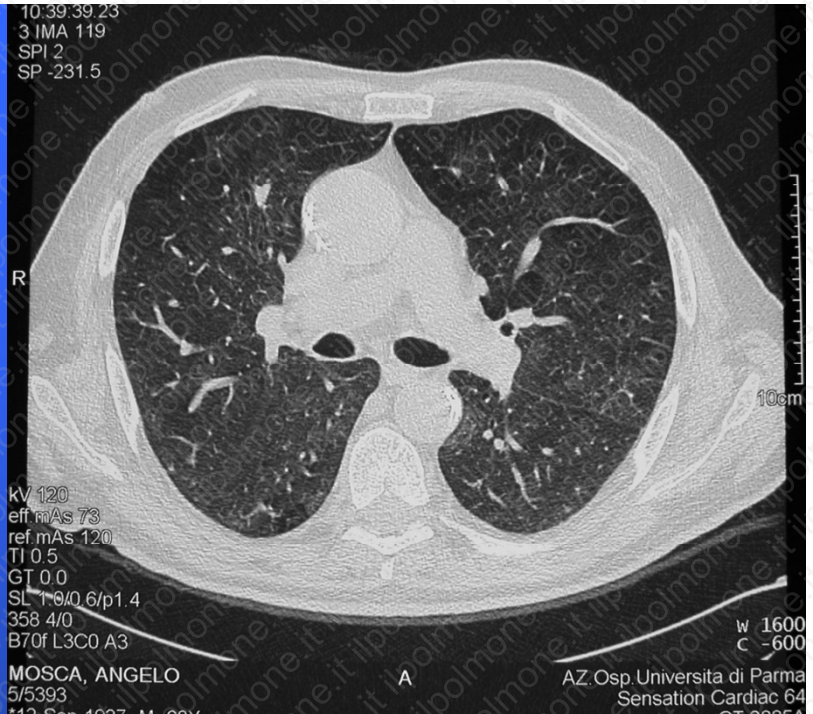
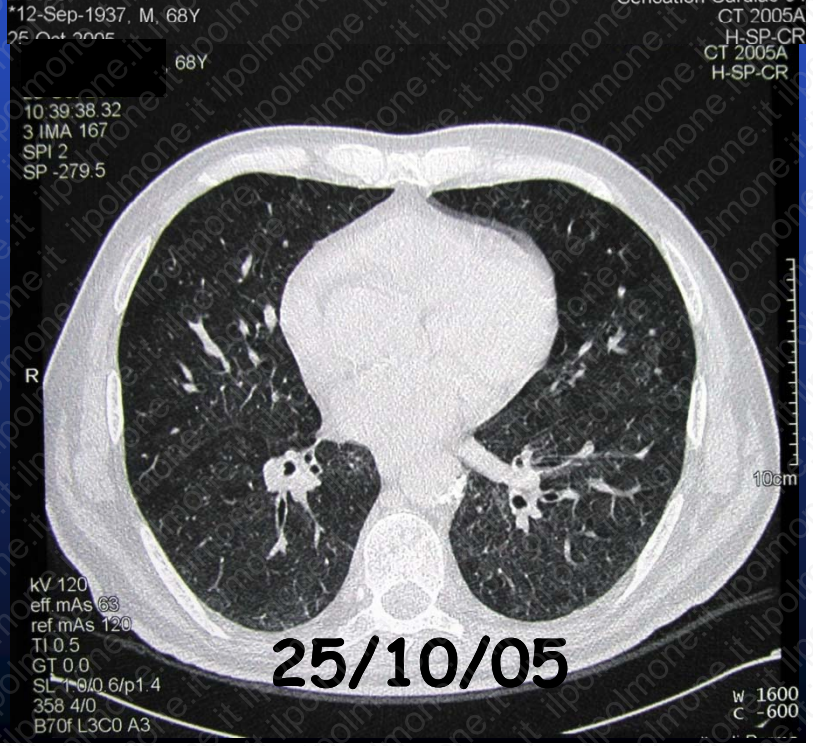
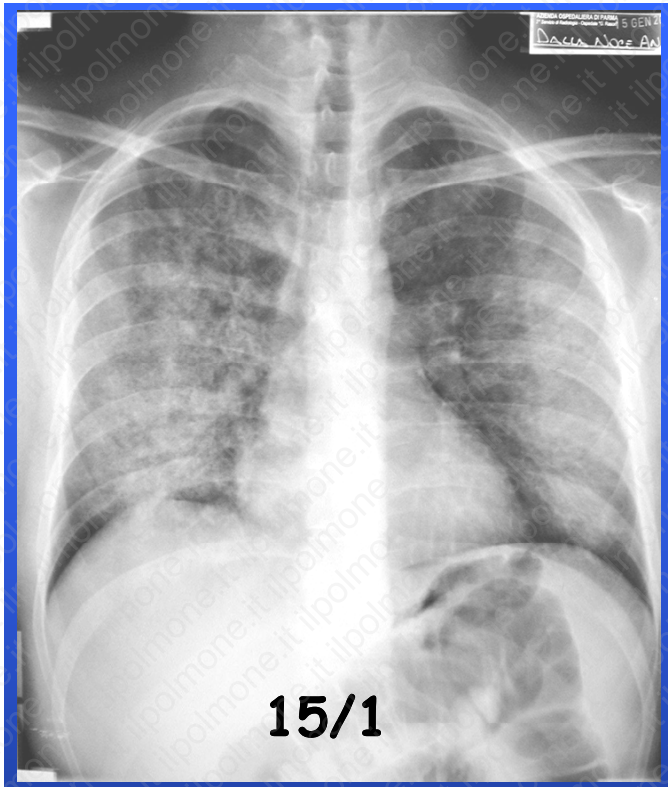
GT 0.0
SL 5.0/1.0/9.0
392 -19/0
B70s L3C0
W 1600
C -600


10:39:39.23
3 IMA 119
SPI 2
SP -231.5
R
10cm
kV 120
eff.mAs 73
ref.mAs 120
TI 0.5
GT 0.0
SL 1.0/0.6/p1.4
358 4/0
B70f L3C0 A3
W 1600
C -600
MOSCA, ANGELO
5/5393
*12-Sep-1937, M, 68Y
A
AZ.Osp.Universita di Parma
Sensation Cardiac 64
CT 2005A
H-SP-CR


68Y
CT 2005A
H-SP-CR
10 39 38.32
3 IMA 167
SPI 2
SP -279.5
R
10cm
25/10/05
kV 120
eff.mAs 63
ref.mAs 120
TI 0.5
GT 0.0
SL 1.0/0.6/p1.4
358 4/0
B70f L3C0 A3
W 1600
C -600

Diffuse alveolar hemorrhage



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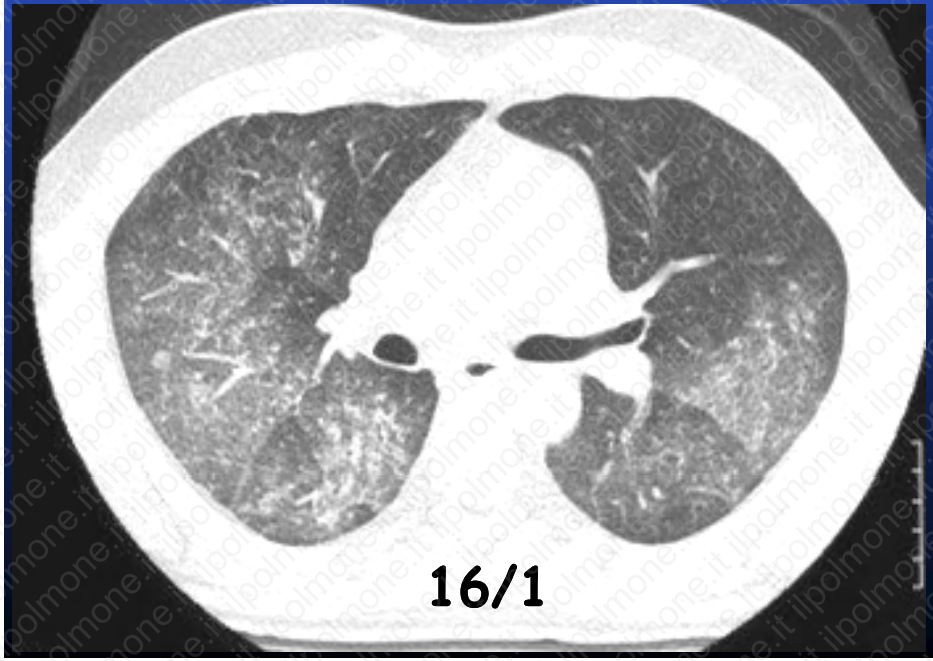
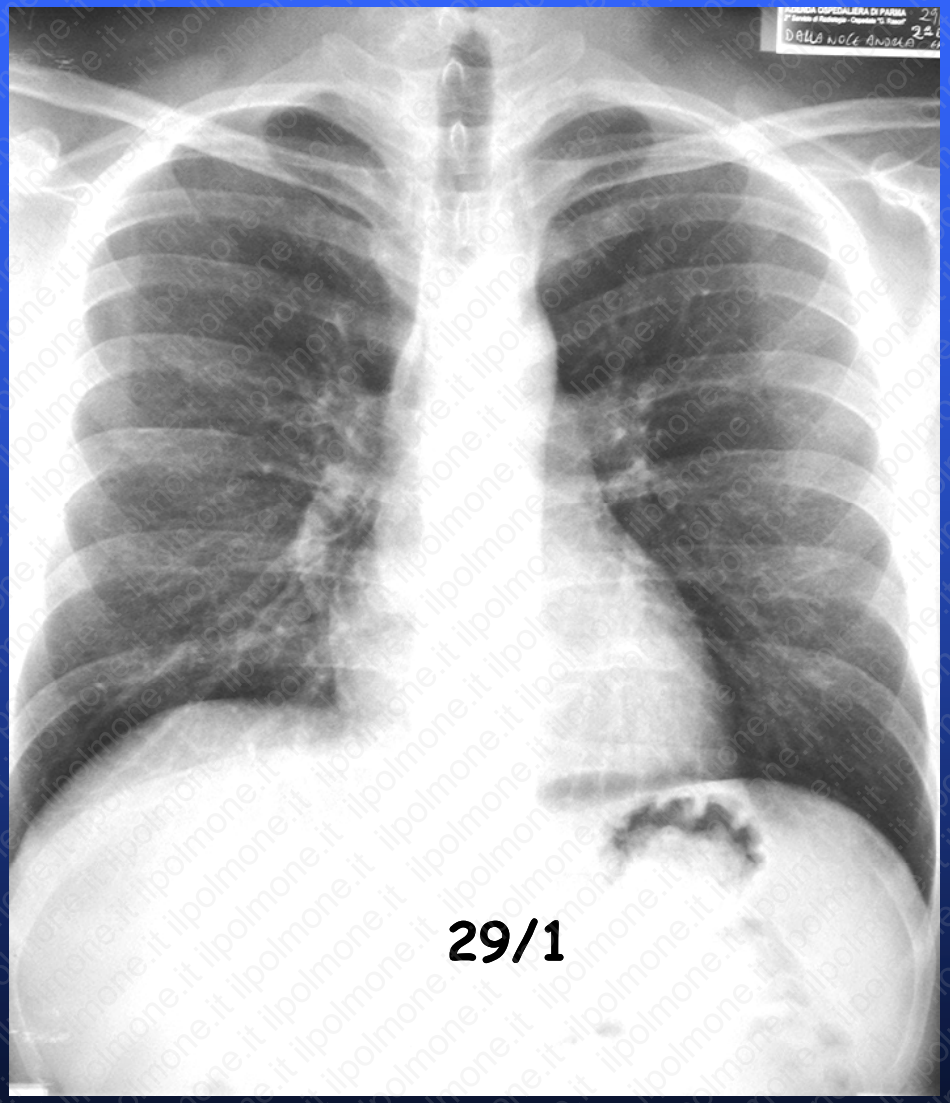
13%



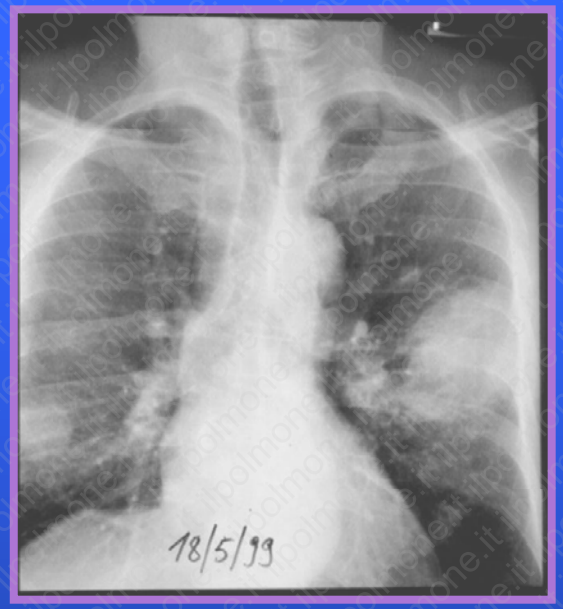
16/1

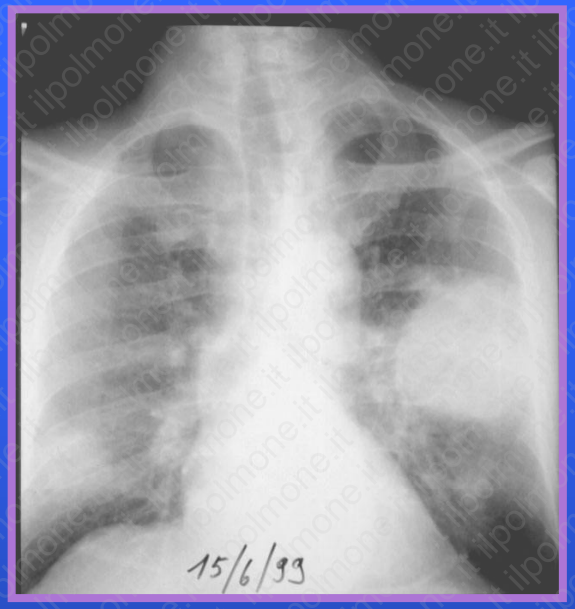


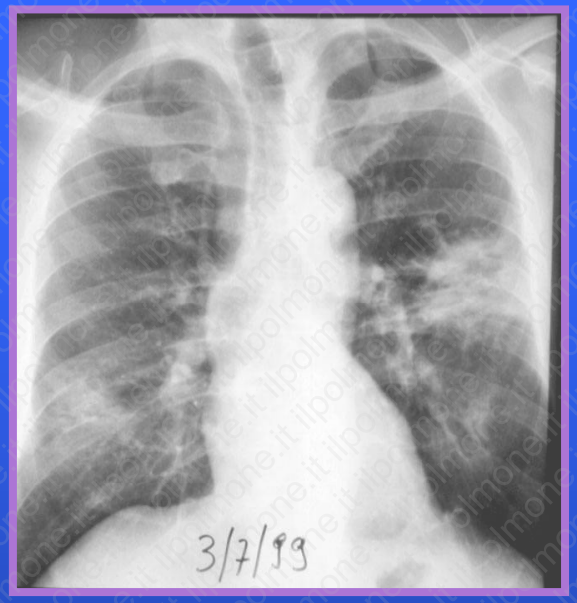
29/1

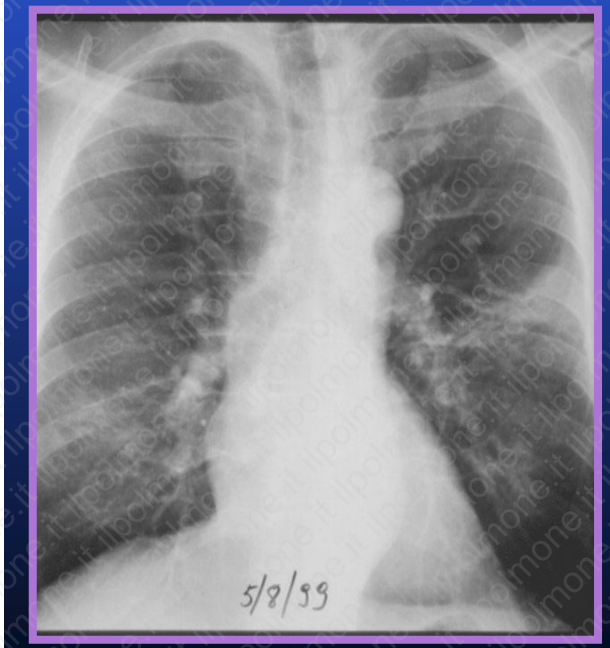
Comments

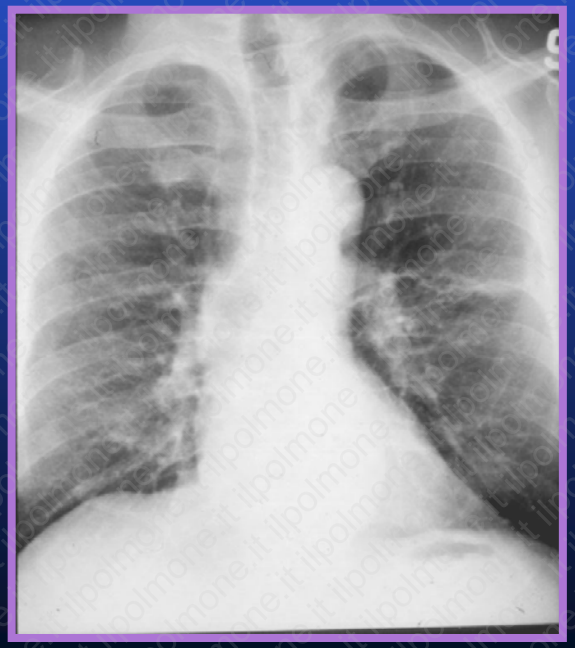
- DAH can be the *presenting* manifestation of WG
- DAH is the result of *alveolar capillaritis*
- DAH can cause *acute respiratory failure* requiring *mechanical ventilation*
- *A rapid Hb drop and alveolar-interstitial pulmonary infiltrates on a chest radiograph should heighten suspicion of DAH, even in absence of hemoptysis or dyspnoea*











Wegener's Granulomatosis

Reversibility after treatment

Wegener's Granulomatosis

Renal involvement

Renal involvement

- *Rapidly progressive glomerulonephritis*
- *Isolated urinary abnormalities*
- *Chronic renal failure*

Renal biopsy

- *Pauci-immune crescentic GN*

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Wegener's Granulomatosis

Renal involvement

Rapidly progressive glomerulonephritis

- *active urinary sediment*
- *serum creatinine (↑ 0.7-1 mg%/die)*
- *microscopic or macroscopic hematuria*
- *Proteinuria*
- *oligo-anuria*

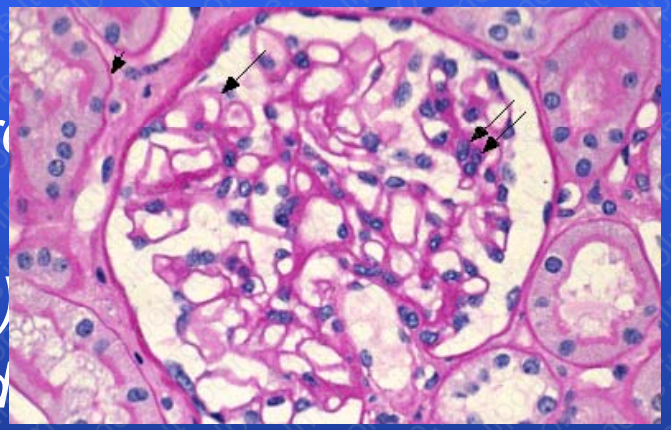
- *Renal ultrasoud (enlargend and hyperechoic kidneys)*

Wegener's Granulomatosis

Renal biopsy

Glomerulonephritis

- *Crescentic (crescents in differ*
  fibrin, cellular and sclerotic)
- *Necrotising (fibrinoid necrosis)*
- *pauci-immune (rare immune d*



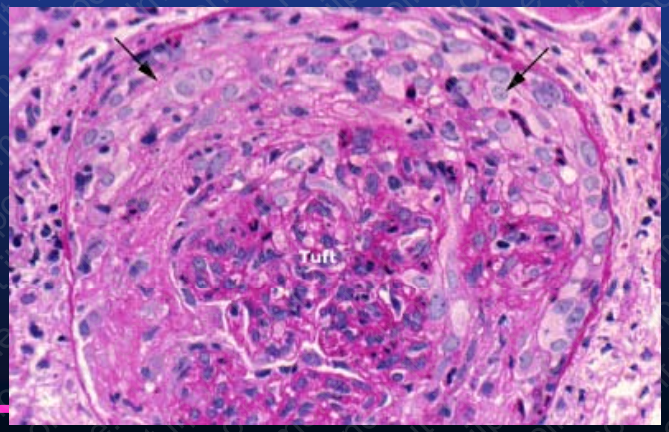
Normal glomerulus

Vasculitis (less frequent)

- *Interlobular arteries*
- *Arterioles*

Granuloma (rare)

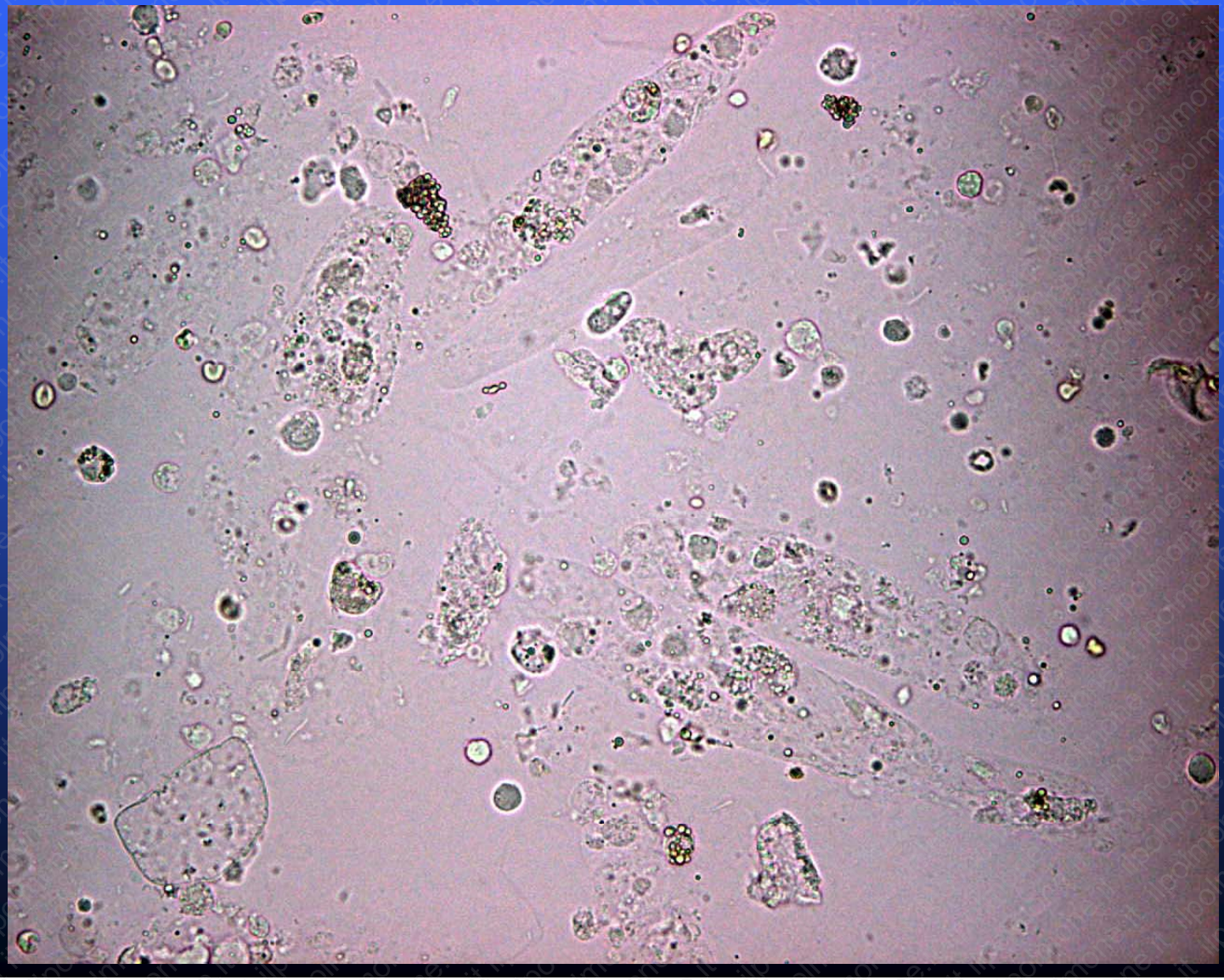
RPGN/Crescentic GN

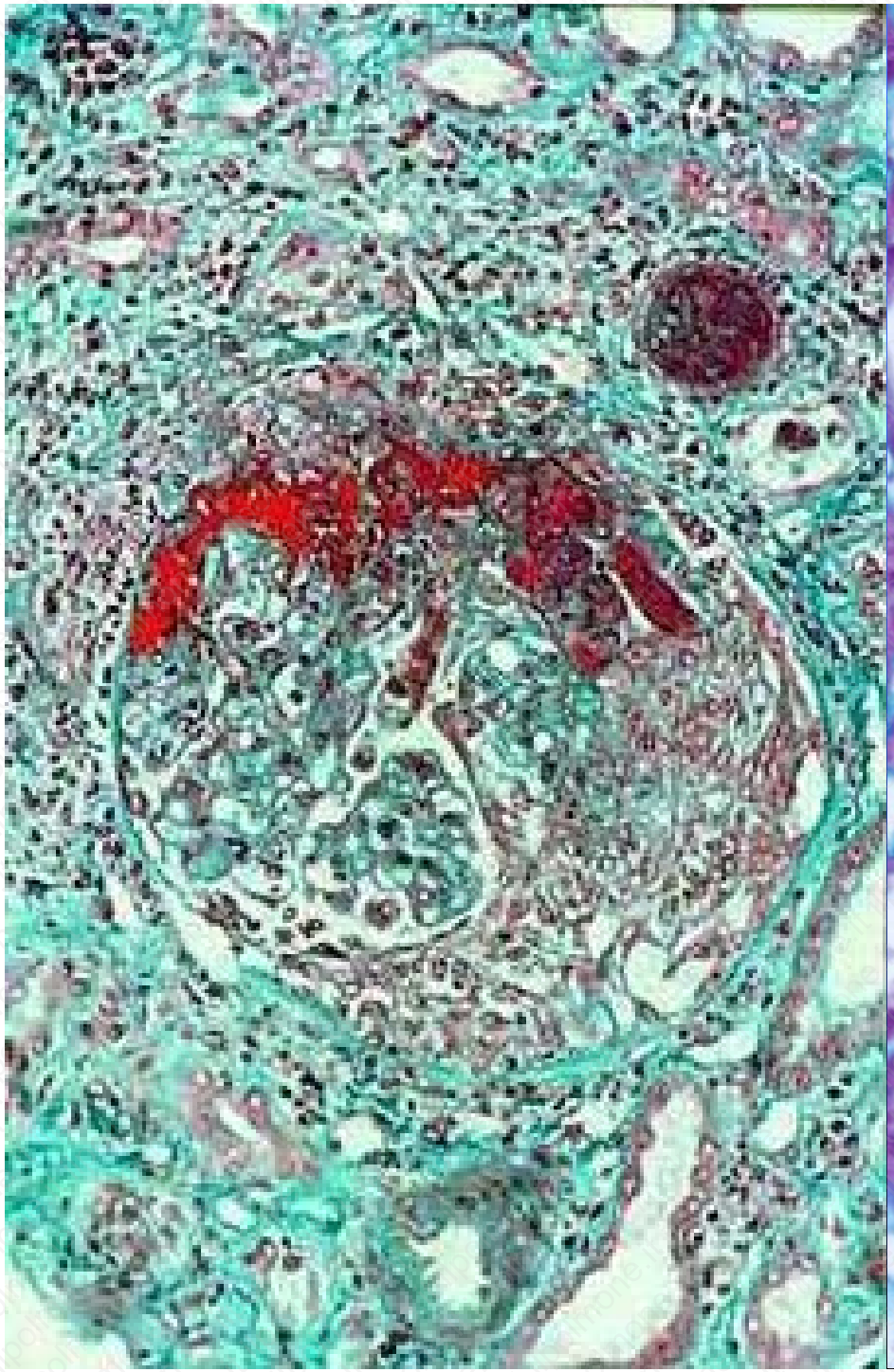


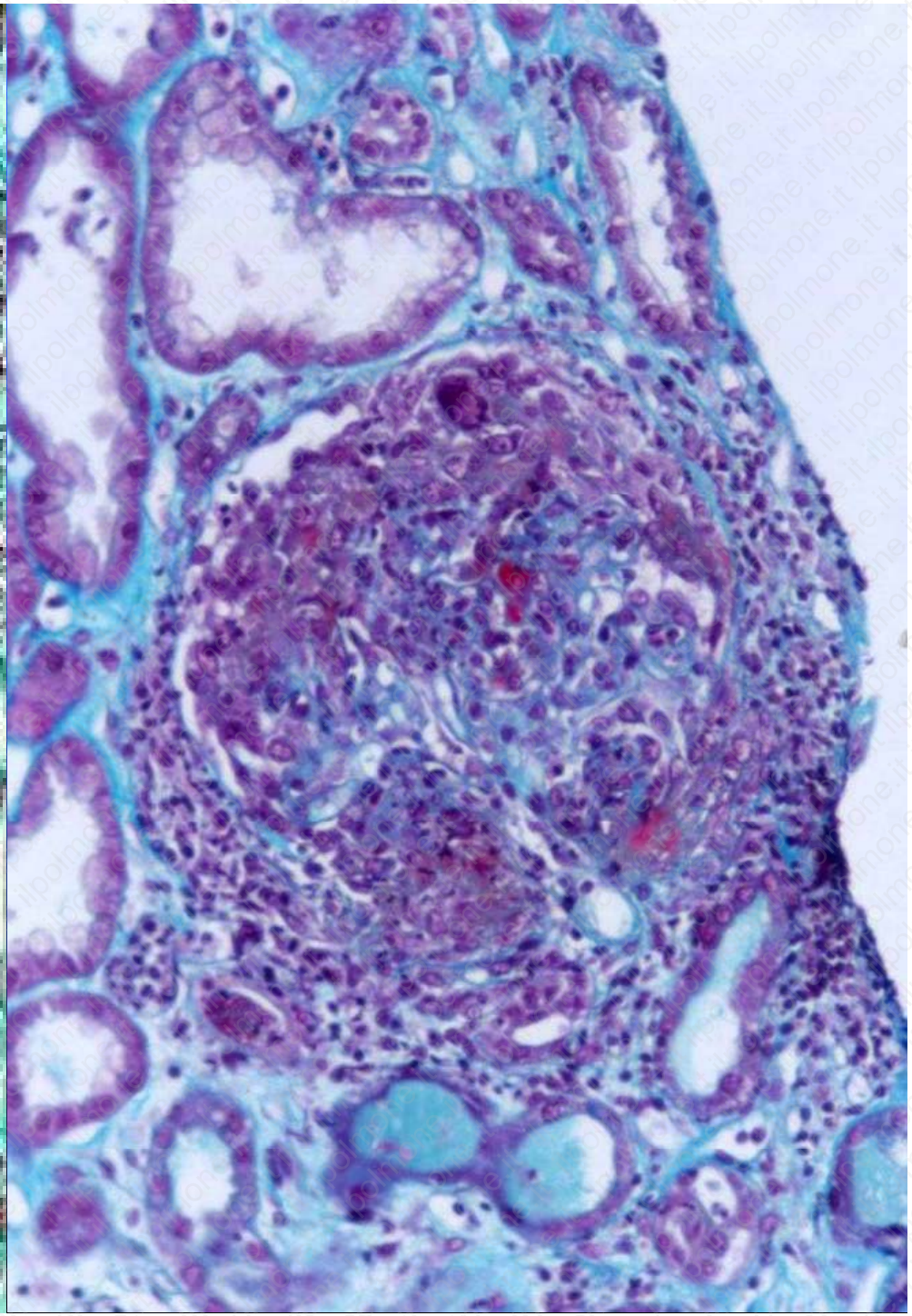
Rapidly progressive glomerulonephritis

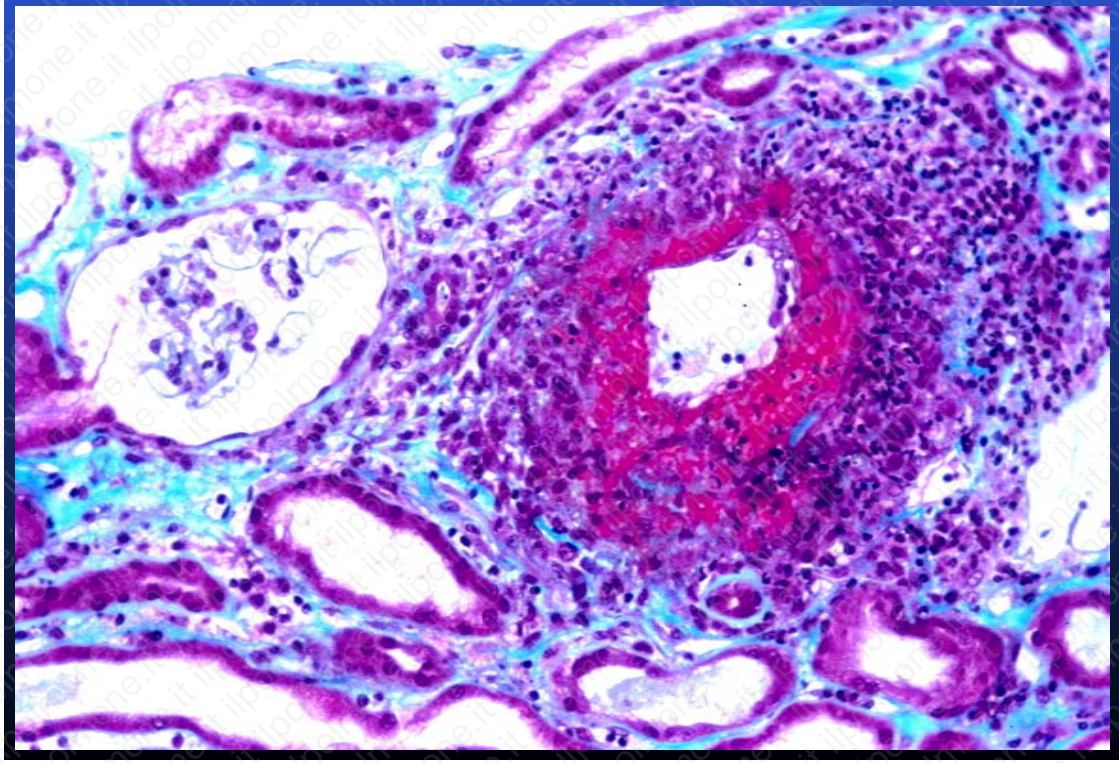
Active urine sediment

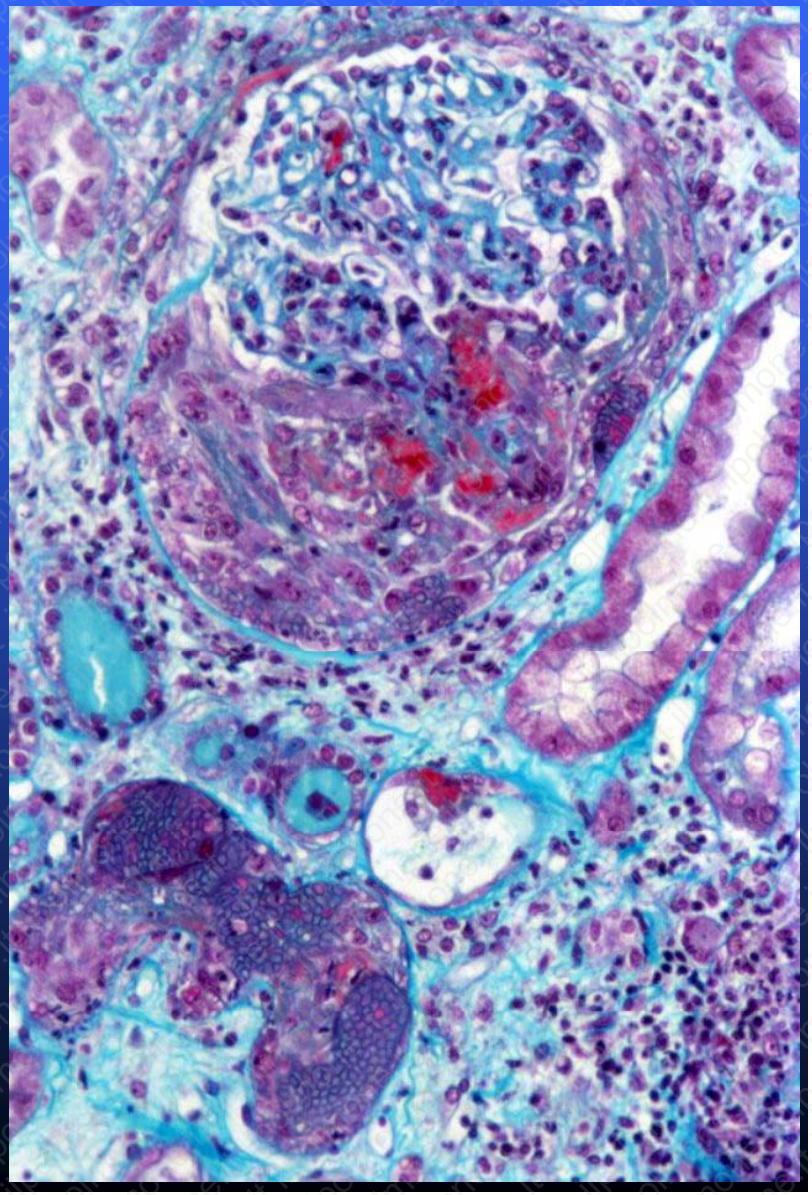
Pauci-immune crescentic glomerulonephritis





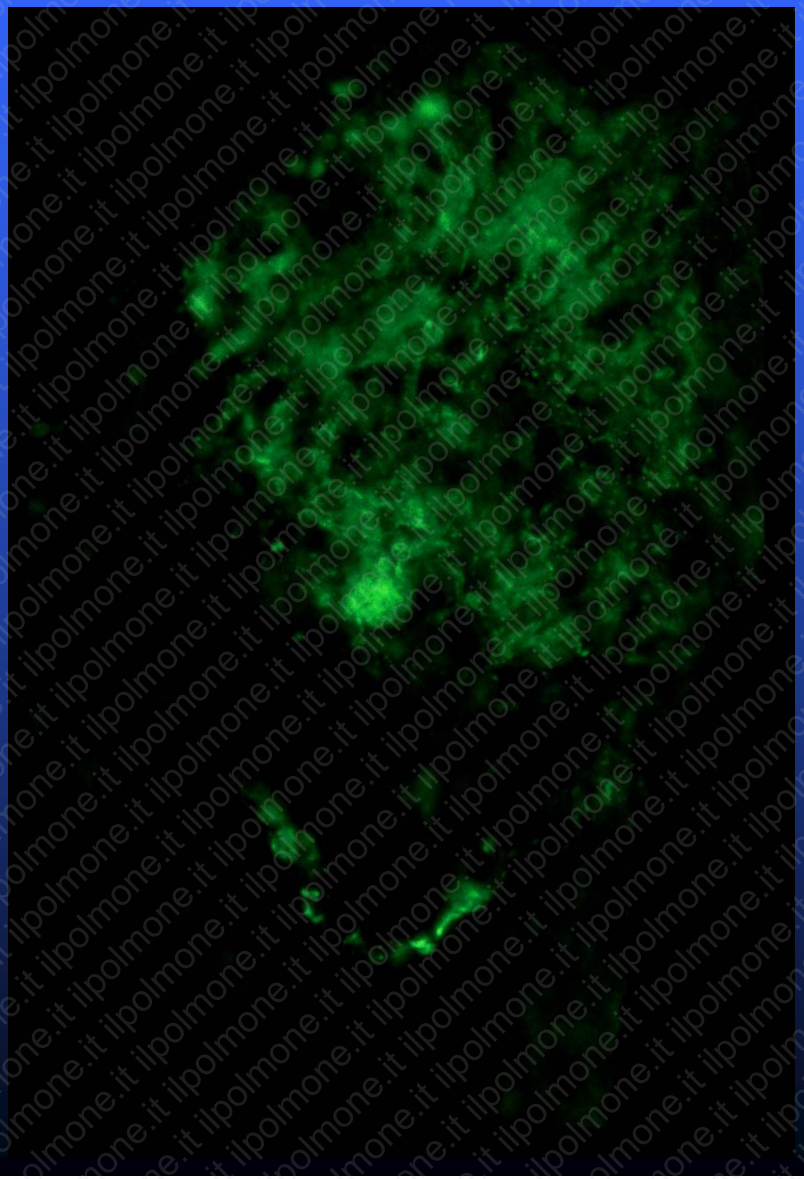




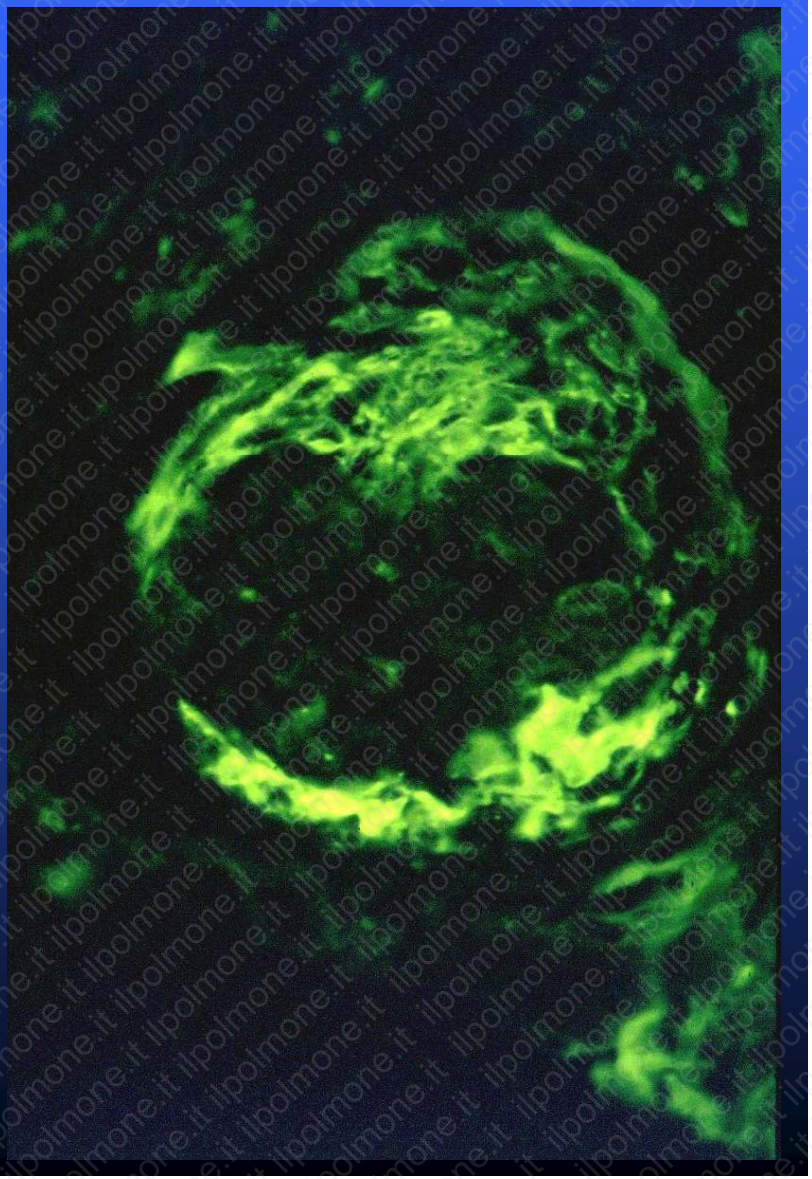


"Pauci-immune" crescentic glomerulonephritis

Mild IgG deposits mesangial



Fibrinogen deposits predominantly in the urinary space



Wegener's Granulomatosis

Prognosis

- Poorer outcomes with advanced age, severe renal impairment, DAH
- Mortality >75% if untreated with median survival of 5 months. Drastic improvement since 1970s in mortality
- Permanent morbidity:
  - CKD 42%
  - Hearing Loss 35%
  - Nasal Deformity 28%
  - Tracheal Stenosis 13%
  - Severe Infection 50% (Treatment)

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Microscopic Polyangiitis

clinical manifestations

Clinical manifestations	Frequency (%)
Rapidly progressive glomerulonephritis	100
Pulmonary (hemorrage, hemoptysis)	10-30
Constitutional symptoms (fever, chills, weight loss, arthralgias/myalgias)	70-80
Cutaneous (purpura, urticaria, subcutaneous nodules, exanthem)	50-65
Nervous system (mononeuritis multiplex)	15-50
GI (pain, GI bleeding, infarction, perforation)	30-45
Ocular (conjunctivitis, uveitis)	0-30
Cardiac	10-20
Upper airway	0-15

Microscopic Polyangiitis

- Clinical Presentation:
  - Systemic, multi-organ complaints along with constitutional symptoms
  - Pulmonary involvement in approximately 30-50%
  - Milder upper respiratory disease than pts with WG
  - Necrotizing glomerulonephritis is common (79%)
- Laboratory Findings:
  - ANCA: + p-ANCA in 50-75% and + c-ANCA in 10-15%
- Diagnosis:
  - Biopsy reveals necrotizing vasculitis and non-granulomatous inflammation