

* The most cause of infectious disease / 2 billion have latent TB

* ↑ Drug-resistant TB

* Associated with poverty

▶ Mortality → 50% of untreated pts
Now 4%

▶ Microbiology ⇒

1 M. Tuberculosis

2 M bovis

- slow growing (4-8 weeks)

- from cattles

- Acid fast bacilli

- Humans the only reservoir

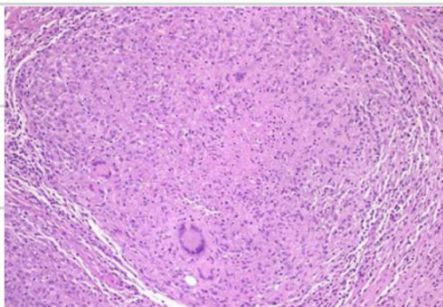
▶ Transmission ⇒ Airborne

▶ Pathophysiology ⇒ when inhaled, droplet nuclei deposited within terminal airspace of lung

↓
Macrophages ingest & transport bacteria to regional lymph node

May be killed by immune system ←
or
Multiply and cause primary TB ←
or
Become dormant & asymptomatic
or
Proliferate after latency period ~ reactivation disease 2° TB

▶ Histo ⇒



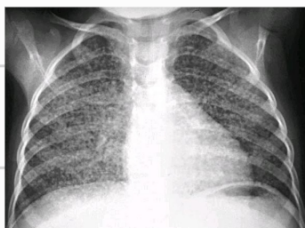
→ caseous necrotic granuloma.

▶ Diagnosis ⇒ sputum for 3 days [OR] every 8 hrs // children ⇒ early morning gastric aspirate

• Bronchoscopy with biopsy & bronchial washing

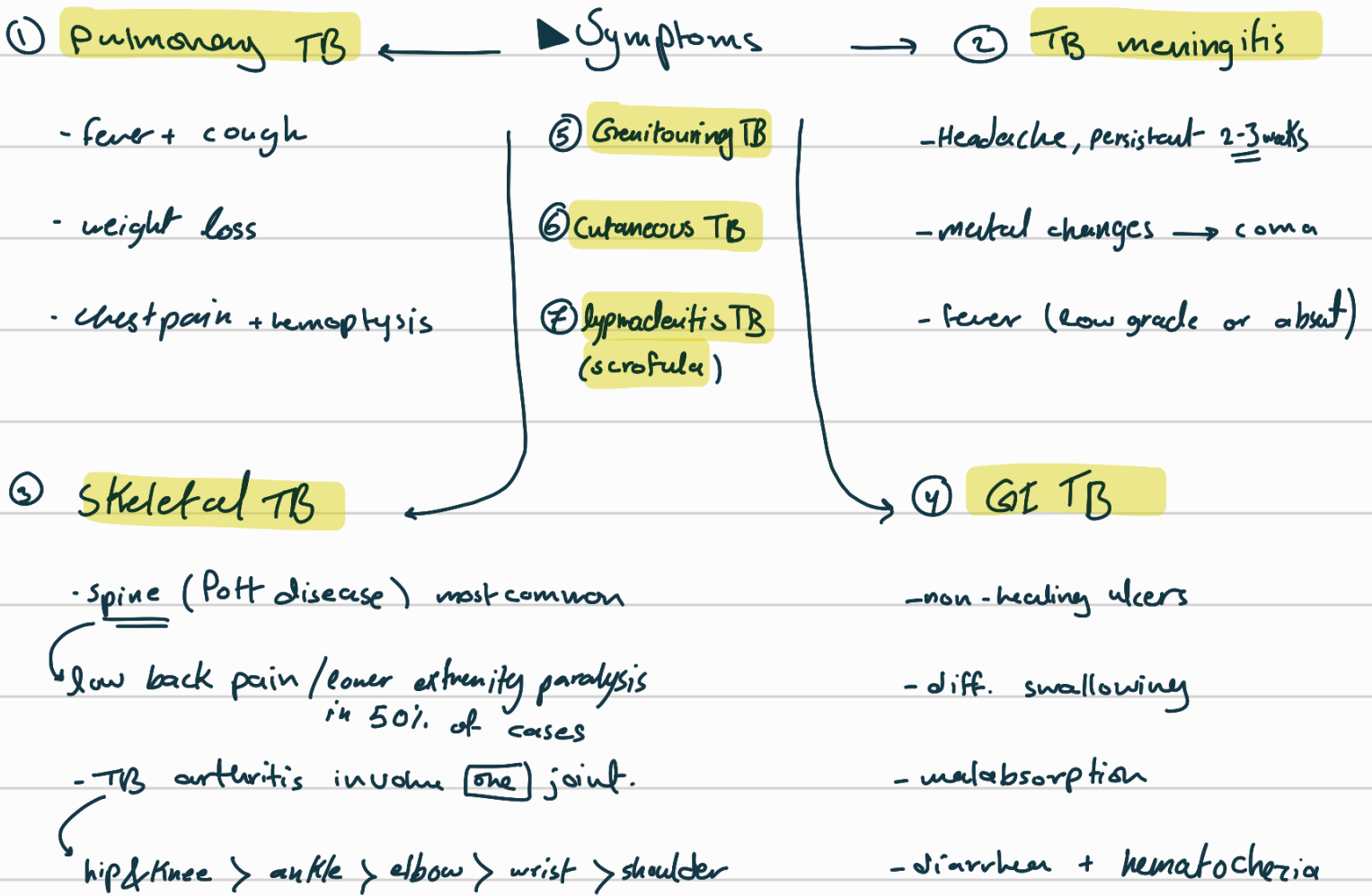
• CXR (patchy, nodular infiltrate, upper lobe involent / advance ⇒ cavity infection)

↳ Miliary TB (small nodular lesions)



• **PPD** (Tuberculin skin test - Mantoux test) ⇒ diagnosing latent infection, intradermal injection → 48-72 hrs → test the size of induration

This test for high risk development of TB ⇒ (علاج المريض / إجراء اختبار الجلد)



► Treatment ⇨

- start 4-drug for 2 months
- INH / Rifampin / Pyrazinamide / streptomycin
- Prolong > 6 months
- INH / Rifampin

► Prevention ⇨

- Respiratory isolation
 - (-ve) pressure room
 - N95 mask