



MELIOIDOSIS – An Emerging Tropical Disease in India

‘MISSION’- ICMR TASK FORCE

‘MISSION’: A Multi-Centric Capacity Building Initiative to Strengthen the Clinical and Laboratory Detection of Melioidosis in India with special focus on the North Eastern States

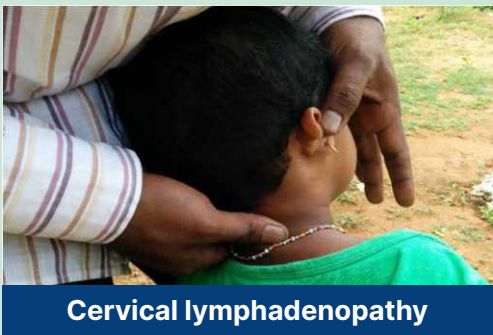


MELIOIDOSIS: Neglected infectious disease which can be fatal

- Causative agent is a bacterium, *Burkholderia pseudomallei*, which is found in the soil and water.
- Can be transmitted by inhalation, inoculation, and ingestion.
- People who come in contact with soil and water by occupation or during recreational activities are affected.
- Risk groups are uncontrolled diabetes, chronic kidney disease, chronic alcoholism, thalassemia, immunosuppressive conditions etc.
- It has acute phase (1-21 days) and chronic phase (>2 months).



Cutaneous ulcer



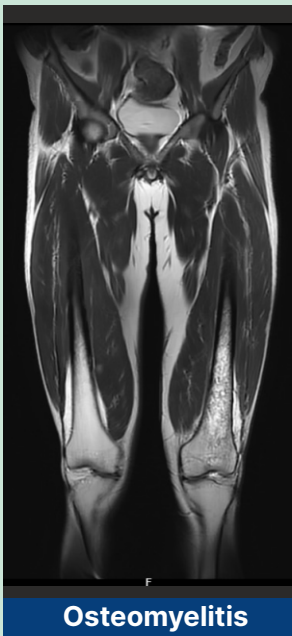
Cervical lymphadenopathy



Septic arthritis

Common Clinical Diagnosis for Melioidosis:

- Community Acquired Pneumonia
- Community Acquired Sepsis
- Deep Organ Abscess (Liver, Spleen, Lymph Nodes)
- Parotid Abscess
- Prostatic abscess
- Septic Arthritis
- Osteomyelitis
- Cellulitis
- Cutaneous ulcers
- Cutaneous abscess
- Meningitis



Osteomyelitis



Lobar pneumonia



Plantar abscess

Where and how melioidosis patients generally present?

Specific Symptoms and signs	Common Admitting Departments
1. Chest pain, Respiratory distress, Shortness of breath	Emergency Medicine, General Medicine, Pulmonary Medicine, Cardiology
2. Organ abscess (liver, lung, spleen, parotid, prostate, lymph nodes, or brain)	Surgery, Neurosurgery
3. Seizure, Disorientation, Neck Rigidity, Symptoms and signs of Encephalomyelitis/meningitis/extra-meningeal disease	Emergency Medicine, General Medicine, Neuromedicine
4. Joint pain, symptoms and signs suggestive of septic arthritis, osteomyelitis	Orthopedics
5. High fever, hypotension, disorientation, autonomic dysfunction, signs and symptoms of sepsis	Emergency Medicine, General Medicine
6. Skin Ulcer, Nodules, Skin Abscess	Dermatology

Right Samples to be collected from a suspected melioidosis patient:

- Blood culture (2 bottles preferred - total 20 ml)
- Sputum (or any other respiratory specimens)
- Pus (from Cutaneous abscess or Deep Organ Abscess)
- Tissue (from Cutaneous ulcers)
- Body Fluids (Peritoneal, Pleural, Pericardial)
- Joint aspirate
- Cerebro Spinal Fluid
- Biopsy (in lymphadenopathy)
- Urine

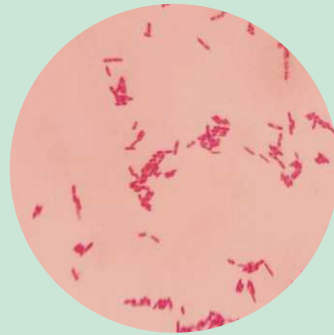
Common symptoms and signs of melioidosis patients:

General Symptoms and signs	Admitting Departments
1. Fever (temperature > 38.0°C [100.4°F])	All departments, especially Medicine, Emergency Medicine
2. Breathlessness	
3. Muscle aches	
4. Headache	
5. Chest pain	
6. Anorexia	
7. Abdominal discomfort	
8. Weight Loss	
9. Skin Ulcer	

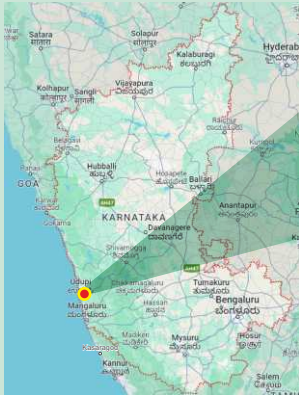


Characteristic wrinkled bacterial colonies

Gram-negative rod-shaped bacteria with bipolar staining showing ‘Safety-pin’ appearance



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