

Extra-pulmonary tuberculosis

By

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

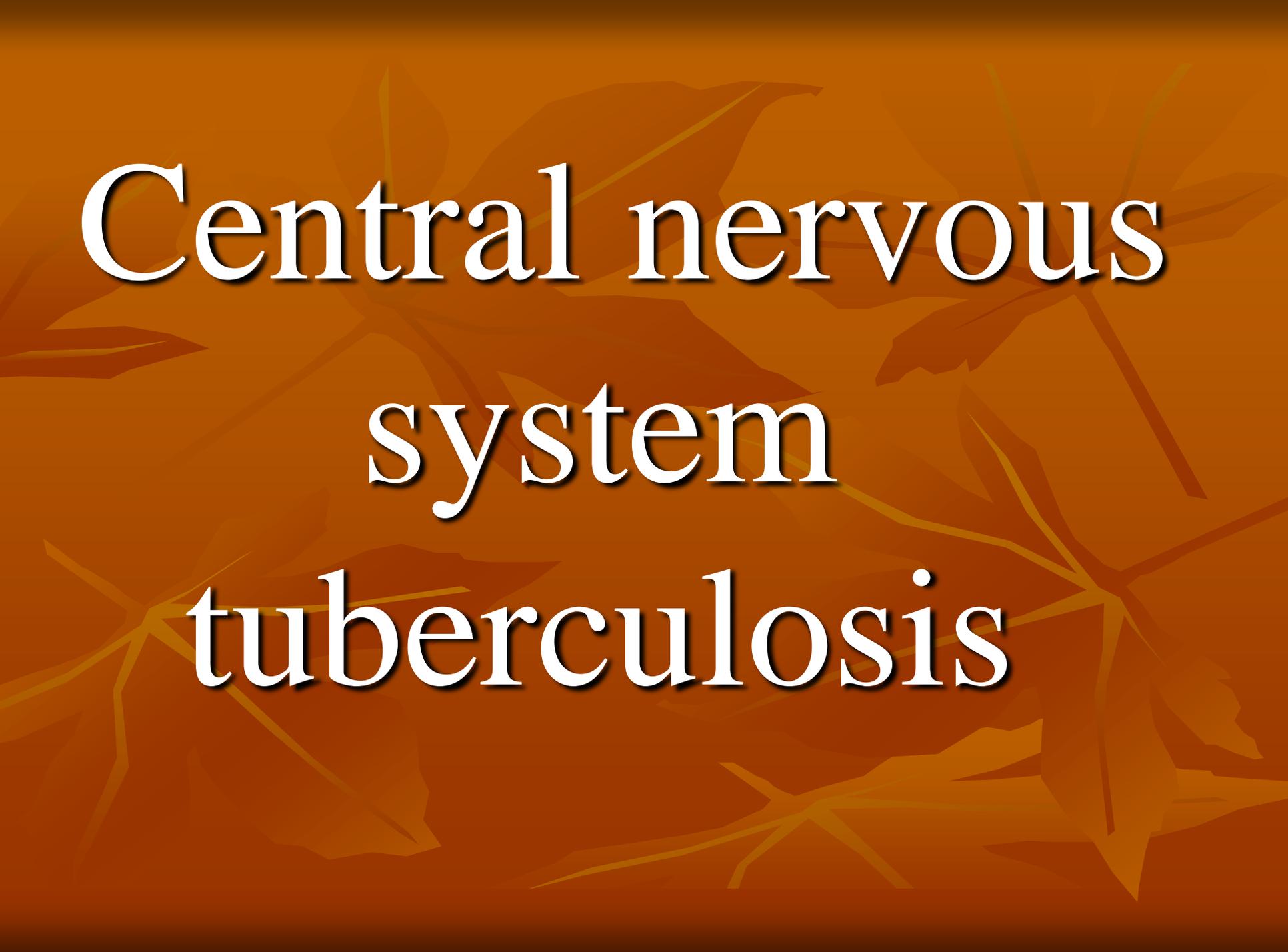
إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا
الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ
مَنْ أَحْسَنَ عَمَلًا

الكهف: 30

Extra-pulmonary tuberculosis:

- It includes:
- **1**-Central nervous system tuberculosis
- **2**-superficial tuberculous lymphadenitis
- **3**-Bone and joint tuberculosis
- **4**-gastrointestinal tract and peritoneal tuberculosis

- **5**-Genitourinary tuberculosis
- **6**-Cutaneous tuberculosis
- **7**-Tuberculous pericarditis
- **8**-Tuberculosis of the breast
- **9**-Tuberculous pleural disease

The background of the slide features a pattern of overlapping autumn leaves in various shades of orange, brown, and tan. The leaves are scattered across the entire frame, creating a textured, seasonal aesthetic.

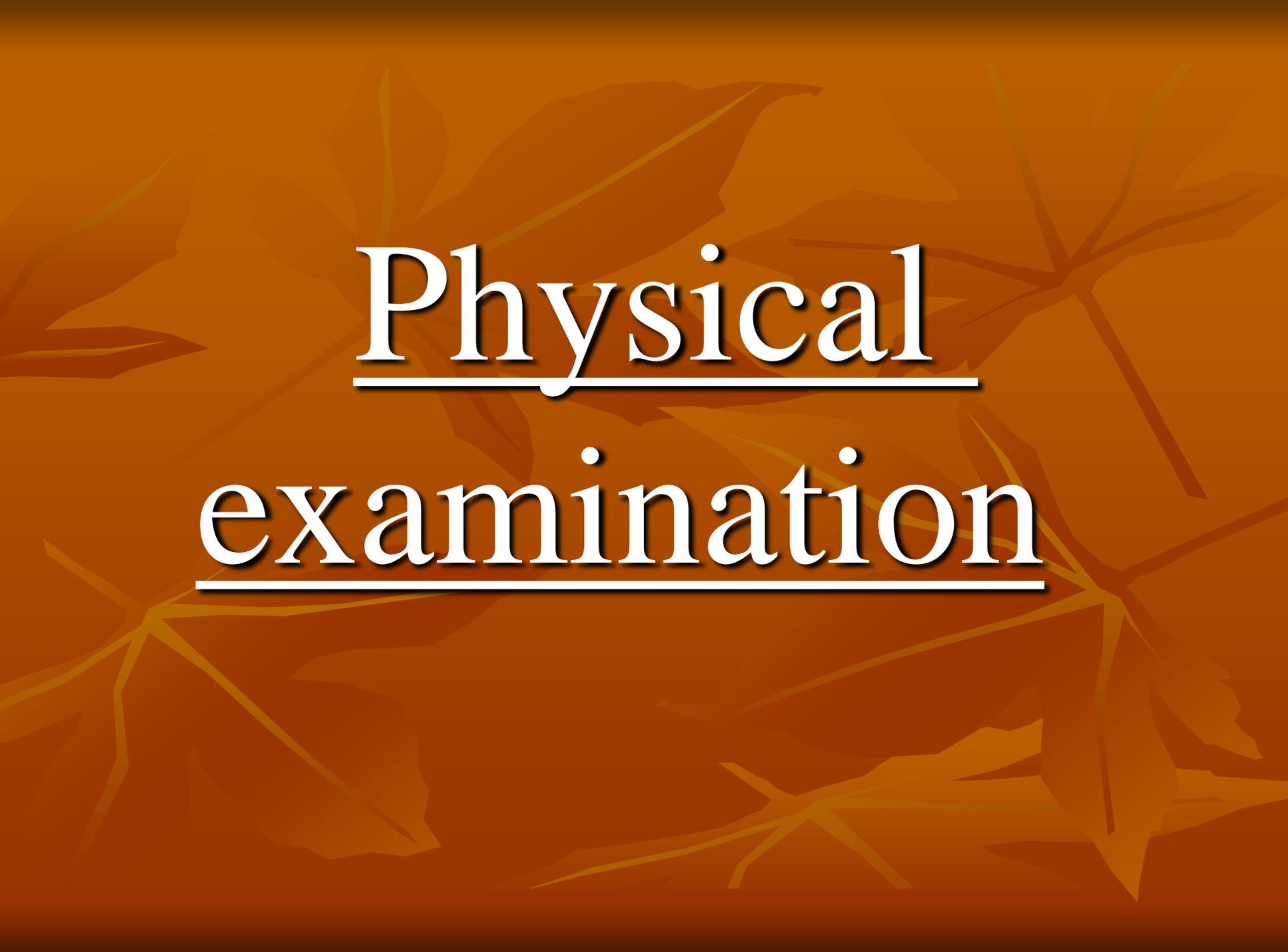
Central nervous system tuberculosis

- CNS tuberculosis is a particular problem in infants and children in whom disease occur as a complication of primary infection but it also complicates military disease in both adults and children
- **The most common manifestation of CNS tuberculosis:**
 - Meningitis
 - Intracerebral tuberculomas
 - Cerebral tuberculous abscess

Clinical features:



- They are usually insidious and take form of malaise, anorexia, fever, weight loss, headache, diplopia, drowsiness, confusion and meningism
- Cranial neuropathies particularly involving abducent, oculomotor and facial nerves are common. Sensorineural deafness



Physical
examination

- May only reveal **meningism and fever** but neurological abnormalities are frequently present such as
 - **1-Cranial neuropathies**---nystagmus or ophthalmoplegia
 - **2-Focal neurological signs** such as hemiparesis, monoparesis, quadreparesis and cerebral paraplegia

- may occur when tuberculoma are present or may arise as a result of arteritis and infarction
- Symptoms and signs of raised intracranial pressure such as coma, generalized convulsions and papilloedema may also be present

Investigations

The background of the slide features a pattern of stylized autumn leaves in various shades of brown and orange, set against a darker brown gradient background.

- **1-Lumbar puncture:** the examination of CSF is mandatory in any suspected case of tuberculous meningitis. CSF characterized by
 - A-May be clear or cloudy
 - B-CSF cells count is usually increased to several hundred cells/mm³ (N=5 cells or less) and **predominant cell is usually lymphocyte**
- .2 -CSF protein concentration increased and CSF glucose is low relative to plasma glucose
- 3-Direct smear of CSF using Ziehl-Neelsen stain or fluorochrome stain
- 4-Culture of CSF on Löwenstein-Jensen medium

- **ELISA** to detect IgG antibody to MTB antigen
- **PCR** ----CSF mycb.DNA
- Tuberculin skin test
- Chest film
- CT scanning of brain (cerebral CT) help in detection of hydrocephalus tuberculomas, infarcts
- MRI

II-Superficial

tuberculous

lymphadenitis

- This is the **commonest form** of extra pulmonary tuberculosis.
- Involvement of lymph nodes may result from direct examination of infection or from haematogenous spread

Clinical features :

- The patient usually present with slow painless swelling of cervical or submandibular nodes.
- Other sites may also be involved including supraclavicular ,inguinal and axillary nodes and there may be multiple swellings.
- Fever, cold abscess or sinuses may form

Investigations:

- The diagnosis is established by :
 - culture of material obtained from node biopsy excision or fine needle aspiration
 - Pathological examination of tissue may show typical tuberculous histopathology.



9/91.5.15







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The background features a warm orange-to-brown gradient. Overlaid on this are several stylized, semi-transparent leaf patterns in various shades of orange and brown, creating a textured, autumnal effect.

THANK YOU