

TUBERCULOSIS (TB)

TB is a chronic wasting disease of zoonotic importance characterized by well encapsulated caseous gritty nodules especially on serosal surfaces, lungs and lymphnodes

CAUSE

Aerobic, acid fast rod shaped organism *Mycobacterium tuberculosis*

INCIDENCE/ SUSCEPTIBILITY

TB occurs universally in man and animals

M.tuberculosis	Man and animals
M.bovis	Man and animals
M.avium	Domestic and wild fowl, pigs, human and monkeys
M.paratuberculosis	Cattle and sheep
M.leprae	Man

TRANSMISSION

- Aerogenous or inhalation
- Ingestion
- Rarely cutaneous, congenital and mammary

CLINICAL SIGNS

CATTLE

- Progressive emaciation inspite of good appetite(Fig.1)
- Intermittent fever
- Chronic cough
- Chronic diarrhea / dehydration
- Swollen and red or firm udder



Fig.1

SHEEP AND GOAT

- Chronic cough/ respiratory disease
- Diarrhea in goats

CHARACTERISTICS LESIONS

- Encapsulated, caseous, gritty nodules of varying sizes in serosal surfaces, lungs, lymph nodes, intestine etc (Fig.2)
- Nodules are hard to cut
- Mammary gland enlarged and firm



COLLECTION OF SAMPLES

Live animals	Dead animals	Preservative used
Swab from sputum	Impression smear from nodules	Heat fixed
Nasal swab	Swab from cheese like material in nodule	PBS/NS
Milk from affected quarter	Impression smear from lung& lymph nodes	Heat fixed
Buccal swab	Tissues sample	10 percent formalin

PREVENTION AND CONTROL

- Regular screening of live animals by tuberculin testing
- Quarantine and slaughter of infected animals
- Proper disposal of dead animals and fomites
- Disinfection of the infected premises and fomites with bactericidal agents
- Antibiotic therapy

SAMPLE TESTING AND FEES

S.NO	Diagnostic test	Samples	Cost in rupees/ sample
1.	Isolation of bacteria by culture	Swabs and tissues	Rs 250/-
2.	PCR	Swabs and tissues	Rs 500/-
3.	Examination of impression smear	Impression smears	Rs 30/-
4.	Histopathology	Tissues	Rs 200/-