

GANGRENE

UNIT-I VETERINARY PATHOLOGY (PAPER-I)

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Introduction

- Defined as **Invasion and petrification of necrotic tissue by saprophytic bacteria.**
- **Commonly seen in**
 - **LUNG (due to faulty drenching/infected stomach tube)**
 - **INTESTINE (due to torsion)**
 - **EXTREMITIES(due to freezing/ergot poisoning/Se Toxicity/Fusarium toxicity)**

Classification of GANGRENE

- Depending on:
 - ✓ Temperature of tissue
 - ✓ Moisture content of tissue
 - ✓ Type of predominant necrosis in the tissue

Two Main Type

DRY GANGRENE and

MOIST GANGRENE

DRY GANGRENE

Occur in tissue

Blood content is less

Fluid content is less

Necrosis develops slowly

Common in

Legs

Hoof

Tail

Beak

Ear

Causes

Fungus (*calviceps purpuria*)

Seleniferous Plants Feeding

Consistent pressure on skin

Moisture and temperature of the necrosed area are limiting factor for the growth & spread of putrefying bacteria.

DRY GANGRENE

GROSS APPEARANCE

Dry, shriveled & mummified appearance
Colour green to black
Zone of hyperemia and inflammation
putrid odour due to H₂S

MICROSCOPIC APPEARANCE

Coagulative necrosis in affected area
Phagocytic leukocytes are predominant cell
pink stained with numerous bacteria

GIT is mostly involved, because intestinal wall gets necrosed easily by putrefactive bacteria and thereby rupture occurs, and finally fecal content discharged in to peritoneal cavity and microorganisms spread rapidly into viscera. Finally septicemia , toxemia shock & death occurs.

MOIST GANGRENE

Occur
in
tissue

Abundance of
Moisture

Higher
Temperature

VERY RAPID
growth of
saprophytic
bacteria

Common in
INTERNAL
ORGANS

LUNGS

INTESTINE

Causes

Necrotizing
bacterial infection
(Clostridial
infection of soft
tissue)

Faulty drenching
of medicine

Intestinal
displacement

Death of individual is usual the result if moist gangrene is present. In such cases, animals dies of septicemia, toxemia and shock.

MOIST GANGRENE

GROSS APPEARANCE

Swelling, blistering & wet appearance

Green, Gray or black Colour due to H₂S

Offensive odour

Numerous gas bubble within the tissue

No sharp line of demarcation between living and dead tissue

MICROSCOPIC APPEARANCE

Liquefactive necrosis is predominant type in affected area

Phagocytic leukocytes are predominant cell

pink stained with numerous putrefactive bacteria

Dried & shriveled part may undergo liquefaction with the passage of time and finally may cause sloughing of time and finally cause sloughing of the affected tissue or area termed as VIRTUAL AMPUTATION

