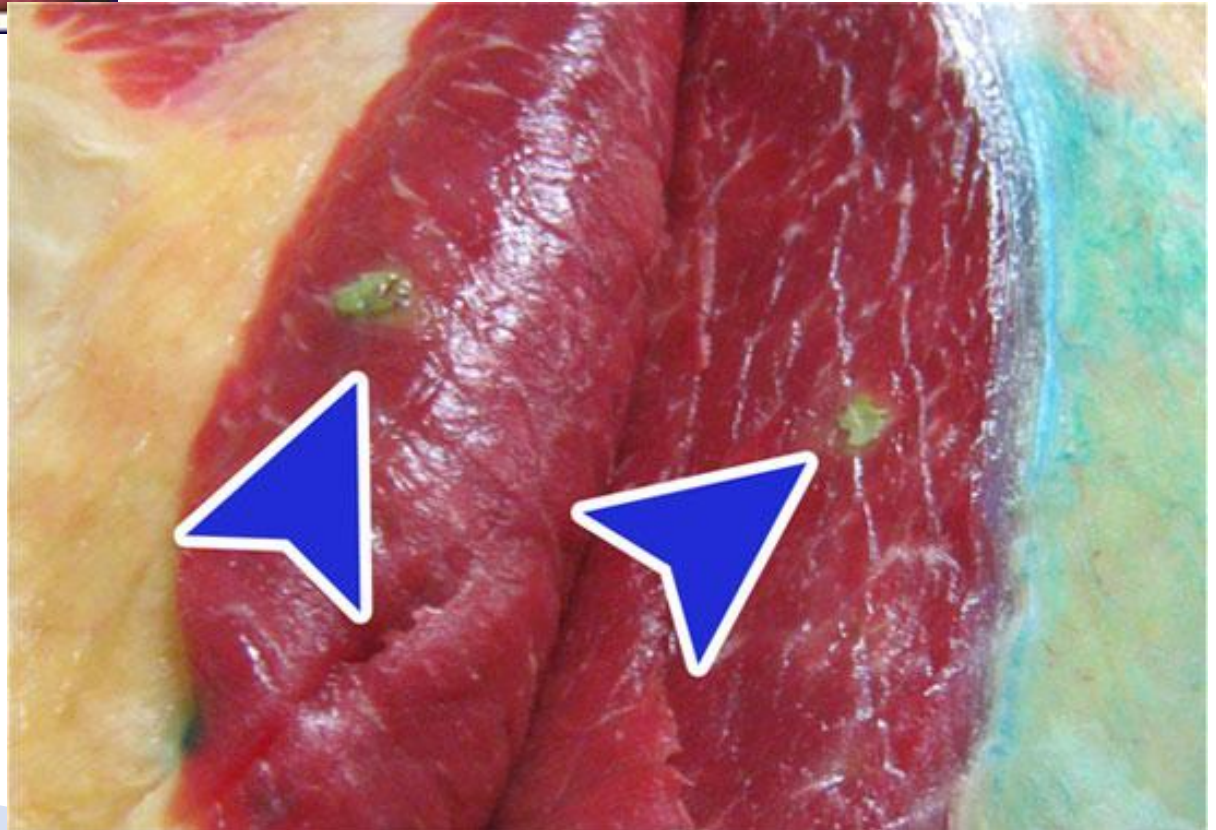
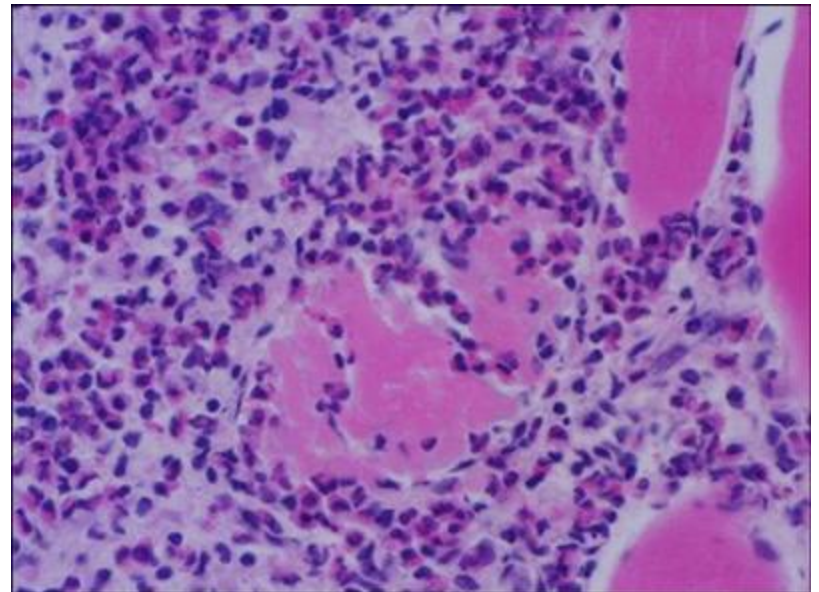
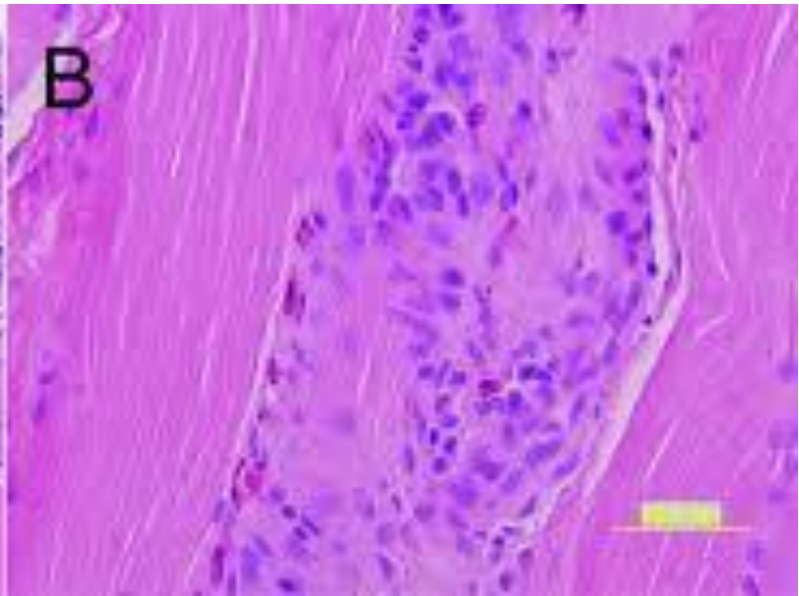
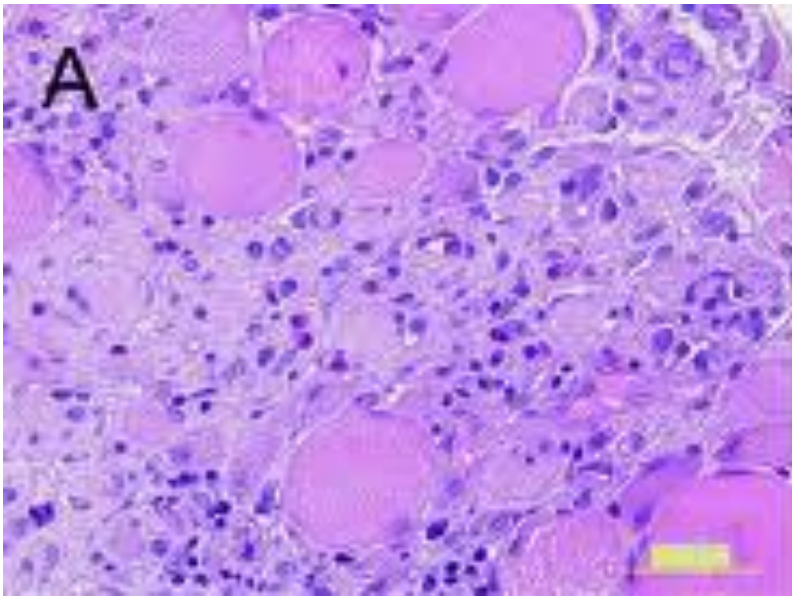


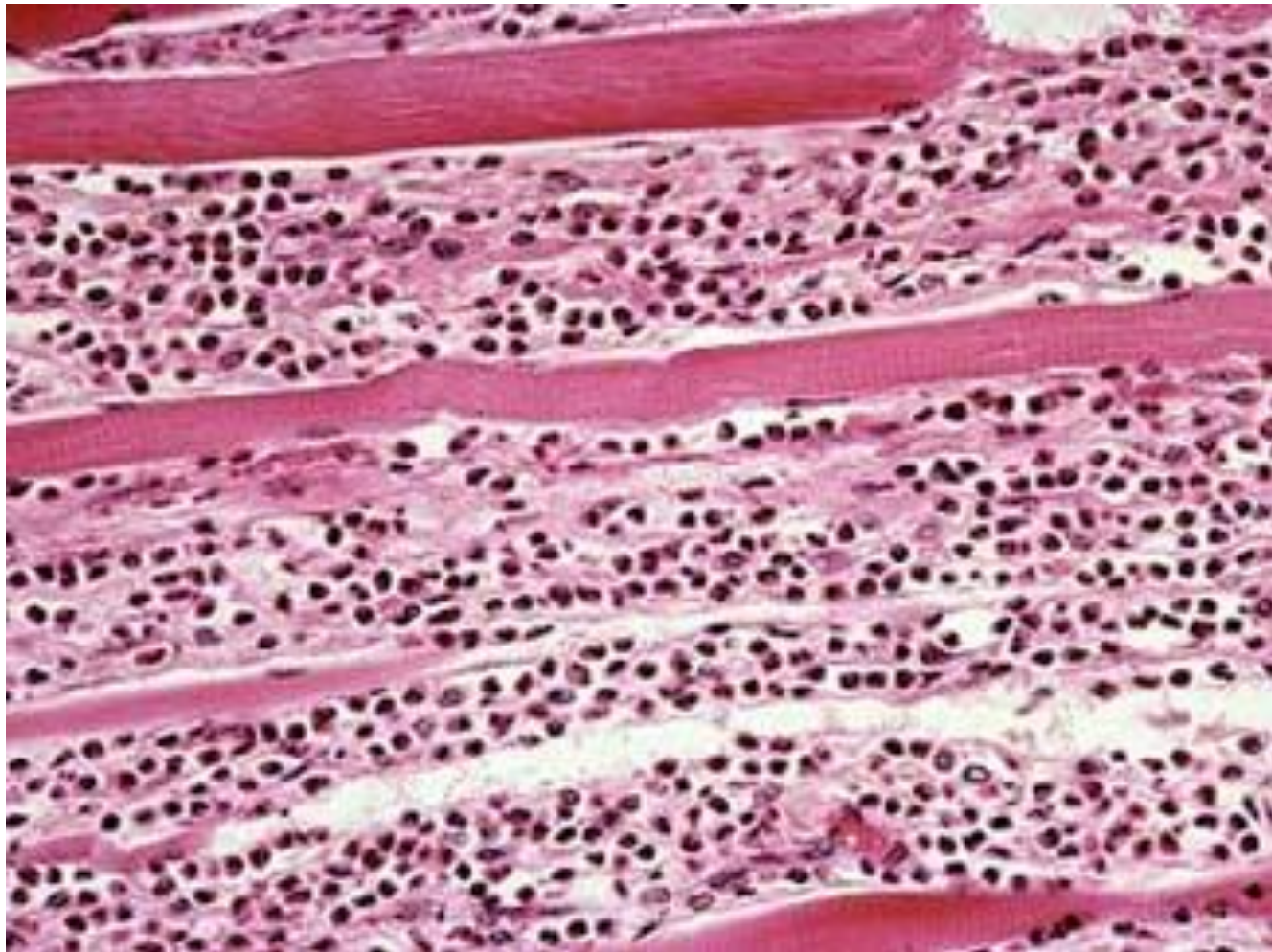
# Myositis

- ▶ Bacteria- Clostridium. Botulinum (Botulism)
- ▶ Streptococcus equi
- ▶ Sarcocysts
- ▶ Protozoa
- ▶ Neosporium canum Dog
- ▶ Trichinella spiralis Pig
- ▶ Acanthobacterium pyogenes Cattle / Sheep
- ▶ Corynebacterium pseudotuberculosis Sheep/Goat
- ▶ Pasturella multocida









- ▶ Granulomatus myositides (M. Bovis)
- ▶ Actinobacillis lignieresi (Wooden tongue in cattle)
- ▶ A. bovis Cattle
- ▶ Staphylococcus aureus Horses

## **Fungal granulomatus myositis**

(Blastomyces dermatidis)

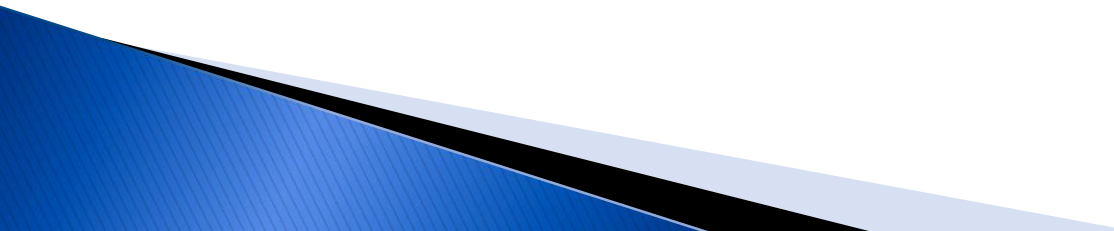
## **Viral Myopathies**

- ▶ Porcine encephalomyelitis Enterovirus
- ▶ FMD Aphthovirus-yellow streaks/gray foci/myofiber necrosis
- ▶ Blue tongue Orbivirus
- ▶ Akabane disease Akabine virus

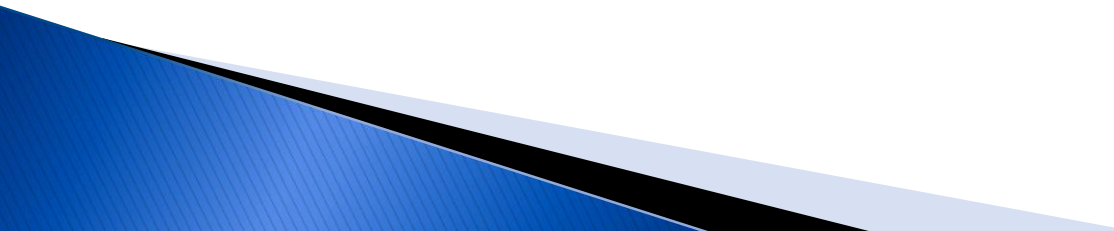
## Parasites

- |   |       |
|---|-------|
| ▶ <i>Trichinella spirallis</i>            | Swine |
| ▶ <i>Ancylostoma canum</i> larvae migrans | Dog   |
| ▶ <i>Toxocara canis</i>                   | Dog   |
| ▶ <i>Dirofilaria imitis</i>               |       |

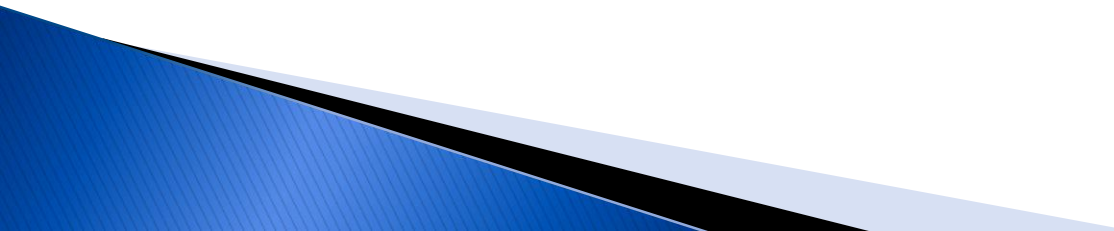
## Congenital myopathies/inherited

- |                      |                        |
|----------------------|------------------------|
| ▶ Myotonia           | (autosomal/ recessive) |
| ▶ Glycogenosis       |                        |
| ▶ Muscular dystrophy |                        |
| ▶ Myasthenia gravis  |                        |
- 

## **Clostridial myositis** (Malignant edema)

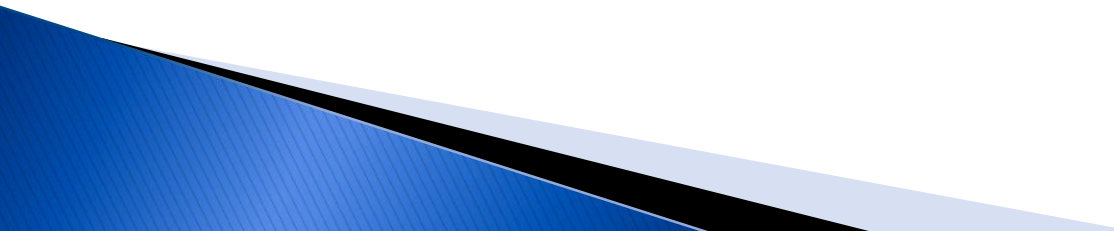
- ▶ Cl. perfringens/Cl. Septicum/Cl. Chouvoei
  - ▶ G+ anaerobic bacteria
  - ▶ Swelling and pain in muscles
  - ▶ Concurrent fever
  - ▶ Depression, dehydration and anorexia
  - ▶ Muscle necrosis
  - ▶ Increased serum CK and AST
  - ▶ Death due to toxemia/ septicemia in 24h
- 

## **Cl. Botulinum (Botulism)**

- ▶ G+ anaerobes, release toxin
  - ▶ Horses sensitive to Botulinum toxin
  - ▶ Generalized facial paralysis (Hallmark)
  - ▶ Acute
  - ▶ Recumbancy, dysphagia and tongue weakness
  - ▶ CK and AST normal limit
  - ▶ Toxin binds irreversibly to presynaptic nerve terminal preventing release of acetylcholine thus causing flaccid paralysis.
- 



# **Clostridial myositis (Black leg (BQ) in cattle**

- ▶ Cl. Chouvoei
  - ▶ Economically important disease
  - ▶ Common in beef cattle
  - ▶ G+ anerobic bacilli
  - ▶ Acute death
  - ▶ Toxemia to the heat, swelling, creptis and dysfunction of affected muscle group.
  - ▶ Fever, anorexia
  - ▶ Increased serum CK and AST
  - ▶ Bacteria- toxins-capillary damage-hemorrhage, edema, necrosis of myofilaments, crepitation due to gas bubbles
  - ▶ Necrosis of muscle fiber-dark red to red black
  - ▶ Wet exudation (early lesion) Dry (Late lesion)
- 

- ▶ Characteristic odor of rancid butter due to butyric acid
- ▶ High fever-affected carcass autolysis rapidly
- ▶ Extensive coagulative necrosis, fragmentation and interstitial edema
- ▶ Isolation on anerobic media is useful confirmation.

## **Rhabdomyomas**

- ▶ Granular eosinophilic cytoplasm
- ▶ Uncapulated
- ▶ Lobulated

## **Rhadomyosarcoma**

- ▶ Metastasis
  - ▶ Pink/uncapsulated
  - ▶ Undifferentiated cells with no striation
- 