

DEPARTMENT OF VETERINARY SURGERY AND RADIOLOGY

ORTHOPEDICS AND LAMENESS

**TOPIC: OSSELETS, RINGBONES, QUITTOR, SIDEBONES, NAVICULAR DISEASES,
PYRAMIDAL DISEASES, FRACTURE OF EXTENSOR PROCESS**

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OSSELETS

- Arthritis of the fetlock joint.
- OSSELETS may be defined as the thickening associated with the synovitis and capsulitis of the fetlock joint fuse to the trauma.
- In chronic condition ossification can be developed.
- Green Osselets are referred as the acute stage of the inflammatory process of this synovial capsule of the fetlock joint.

ETIOLOGY :

- Trauma in young race horse synovitis.

CLINICAL SIGNS :

- Choppy gait, short anterior stride, swelling at anterior aspect new bone growth, chip # in joints, synovitis, lameness, signs of inflammation (pain and heat) present in acute phase.

DIAGNOSIS:

- Clinical signs and symptoms.
- Radio graphic evaluation.
- Synovial fluid analysis.
- Diagnostic arthroscopic.

TREATMENT:

- Rest.
- Apply POP cast for 3-4 weeks asperate the joint and inject corticosteroids in joints.
- Parental nsaid are corticosteroids.
- Stallwaist.
- Therapeutic
- Joint lavage: Remove cartilaginous debris.
- Physical therapy: Hydrotherapy, shortwave diathesis and ultrasound.



OSSELETS IN HORSES



RINGBONES

- Ringbone is described as the any bony enlargement of phalanx in the Pasternak region below the fetlock joint which may lead to osteoarthritis I.e., extosis of phalangeal bones are more common in acute young race horses.

CLASSIFICATION:

- A. High ring bone:** extosis of distal extremity of proximal phalanx and proximal extremity of middle phalanx with or without involvement of proximal interphalangeal joint.
 - B. Low ring bone :** extosis of distal extremity of middle phalanx and proximal extremity of distal phalanx with or without involvement of distal interphalangeal joint.
- On the basis of involving the joints
 - 1. True articular ring bone :** extosis at interphalangeal joints.
 - 2. False ring bone (periarticular ring bone):** extosis at shaft of phalangeal bones

ETIOLOGY: Poor confirmation horses → over exercise → strain in capsule attachment → inflammation.

- Pulling of joint capsule attachment, Hereditary.
- Straining of collateral ligament.
- At attachment of exterior tendons, malnutrition, deficiency of calcium, phosphorus, vitamin A and D.

Symptoms:

- Short anterior stride, swelling above pastern, swelling at coronate, initially pain , swelling, raced hairs on coronate.

Diagnosis:

- Clinical signs and symptoms
- Radiography
- USG
- Nuclear scintinography

Treatment:

- Initially corticosteroids.
- Rest followed by controlled exercise.
- In case of fusion of joints drilling whole joint is ankylosed.



SIDEBONES

- Ossification of collateral cartilage of 3rd phalanx are called side bones.

ETIOLOGY:

- Heredity.
- Defective showing.
- Poor conformation.

DIAGNOSIS:

- Palmer distal narrow block just above collateral cartilage.
- Relieve pain, radiography.

TREATMENT:

- Rest
- Administration of Nsaids.



QUITTOR

- Chronic purulent inflammation of collateral cartilage of distal phalanx.
- Cartilage of distal phalanx.
- It is characterised by cartilage necrosis and multiple fistulosis draining tract to the coronate region.

ETIOLOGY:

- Ingection through injuries.
- Foot abscess, deep hoof cracks.

CLINICAL SIGNS:

- Signs of inflammation (pain, heat) present in acute cases.
- Synovitis is characterized by synovial effusion, joint capsule distension.
- Capsulitis is seen.
- Various degree of lameness.
- Periostitis.
- New bone growth is seen.

DIAGNOSIS:

- Clinical signs and symptoms .

TREATMENT:

- Rest.
- 20% silver nitrate for cauterising action after 10 mins the opening is filled with NSS.
- Last treatment: Give a parallel incision above the coronet for debridement.
- For foot infections sulpha drugs are better than antibiotics.



NAVICULAR DISEASE

- Navicular syndrome is a degenerative disease involving the navicular bone, navicular bursa and deep digital flexor tendon.
- Usually appears between age of 6-12 years

ETIOLOGY:

1. Upright conformation of pastern
- 2. Weak navicular bone
 - 3. Hereditary
 - 4. Faulty confirmation and hoof imbalance
 - 5. Interruption of blood flow to and from navicular region
 - 6. Stress

CLINICAL SIGNS:

- 1. Generally bilateral lameness, may be unilateral
- 2. Intermittent lameness earlier i.e
- Hardwork shows lameness and at rest no lameness tend to improve with exercise
- As disease progresses the lameness become persistent
- 3. Always chronic in nature
- 4. On hard surfaces reluctant to work and displays a stilted or choppy gait
- 5. Landing on toe, pointing on ground i.e the horse may tend to point the affected limb while on rest.

DIAGNOSIS:

1. By history and clinical signs
2. Hoof examination and application of hoof tester
3. Frog wedge test- Placing a wedge of wood under the palmar 2/3rd of the frog and forcing the horse to stand on that for 60 seconds. If lameness exhibits the horse is positive for navicular syndrome.
4. Toe extension test- Elevate the toe of hoof with the wedge of wood and forcing the horse to stand on limb for 60 seconds. If lameness exhibits the horse is positive for navicular syndrome.
5. Phalangeal extension test.
6. X-Ray Water bath imaging technique.
7. Posterior digital nerve block.
8. Navicular bursography.
9. Nuclear Scintigraphy.
10. Computed Tomography.
11. M.R.I.

TREATMENT:

1. Injection of corticosteroids into bursa.
2. Corrective shoeing with Modified keg shoe or Natural balance shoe or Egg bar shoe.
3. Radiation.
4. Posterior digital neurectomy



PYRAMIDAL DISEASE

- Pyramidal disease is characterized by pyramidal distortion of hoof and distal dorsal pastern region, which resulting from a large chronic extensor process fracture (most common) or from phalangeal exostosis (advance stage of low ring bone) involving the extensor process of distal phalanx and distal middle phalanx.
- The exostosis causes an enlargement of the coronary band at the centre of hoof or in chronic cases cause a triangular distortion of the hoof wall.

ETIOLOGY:

1. Phalangeal exostosis.
2. Horses with high heel and short toe.
3. Excessive strain on attachment of long or common digital extensor and the extensor branch of suspensory ligament.

CLINICAL SIGNS:

- Horses often points the affected toe.

TREATMENT:

- 1.No treatment
- 2.Blistering or Firing
- 3.Radiation therapy
- Prognosis-Unfavourable.



PUNCTURED FOOT:

- Any sharp things or any foreign body like nail,gravel,thorn,broken glass penetrates the sole damages the sensitive laminae.
- Tested by hoof tester.

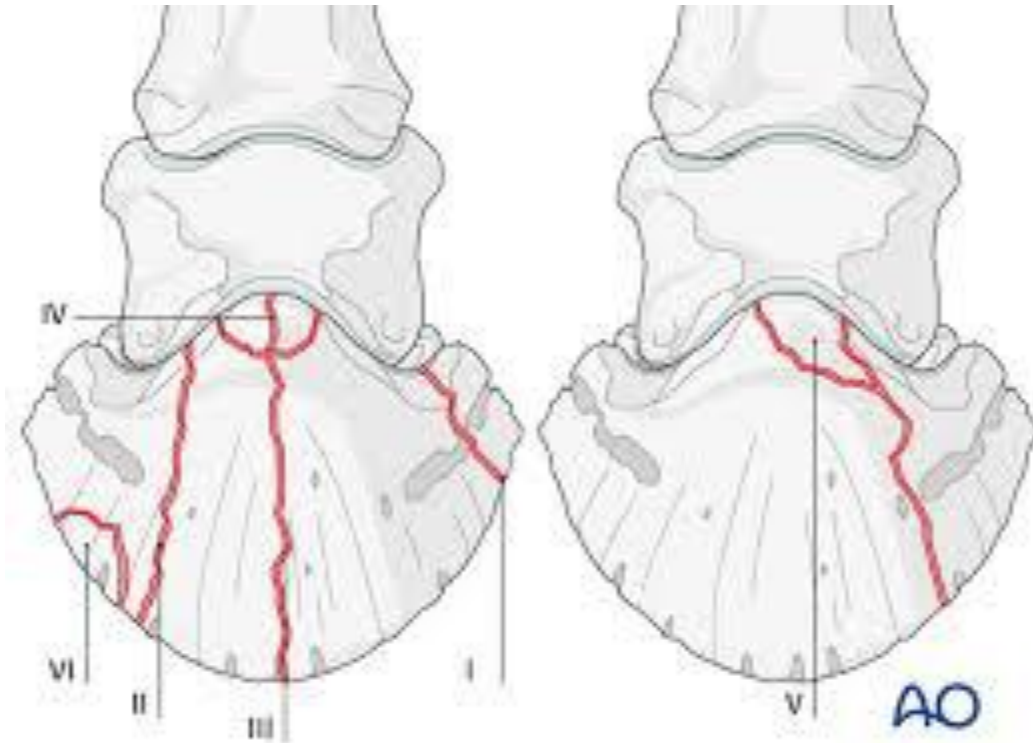
TREATMENT:

- Removal of foreign body by a cone shaped opening.
- T.T. injection must be given.



FRACTURE OF EXTENSOR PROCESS

- Extensor process(type4) fracture of the third phalanx is common in the forelimb.
- The fragment size varies from small with little articular involvement to large,with greater articular involvement.
- This condition is one of the common causes of pyramidal disease.



Thank you !