

Thoracic Leg Lameness in the Dog

Barbro Nordquist, DVM
Puget Sound Veterinary Referral
Center

Orthopedic Examination

- ◆ Gait
- ◆ Standing palpation
- ◆ Recumbent palpation

Orthopedic Examination

- ◆ Young vs. Adult
- ◆ Small vs. Large
- ◆ Thoracic vs. Pelvic



Young Small Breed Dog

Thoracic limb

- ◆ Congenital shoulder luxation
- ◆ Congenital elbow luxation

Pelvic limb

- ◆ Avascular necrosis of the femoral head
- ◆ Patellar luxation

Adult Small Breed Dog

Thoracic limb

- ◆ Arthritis
- ◆ IMPA
- ◆ Congenital shoulder luxation

Pelvic limb

- ◆ Patella luxation
- ◆ Hip OA
- ◆ Cruciate disease
- ◆ IMPA

R/O Neoplasia and neurologic disease

Young Large Breed Dog

◆ Thoracic limb

- ◆ Elbow dysplasia
- ◆ Shoulder OCD
- ◆ Panosteitis
- ◆ HOD

◆ Pelvic limb

- ◆ Hip dysplasia
- ◆ Stifle OCD
- ◆ Tarsal OCD
- ◆ Patella luxation
- ◆ Panosteitis



Adult Large Breed Dog

Thoracic limb

- ◆ Arthritis
- ◆ Shoulder tendon disease
- ◆ Carpal hyperextension

Pelvic limb

- ◆ Cruciate disease
- ◆ Hip arthritis
- ◆ Patella luxation
- ◆ Tendon disease

R/O Neoplasia and Neurologic disease

Orthopedic Examination

- ◆ Gait
 - Head bob
 - ◆ “Down on the sound”
 - Scuffing
 - Stride

Orthopedic Examination



Orthopedic Examination



Orthopedic Examination



Standing Palpation

- ◆ Muscle atrophy
- ◆ Joint effusion
- ◆ Spinal palpation
- ◆ Conscious proprioception
- ◆ Long bone palpation



Muscle Atrophy

- ◆ Leg circumference
- ◆ Scapular spine



Joint Effusion

- ◆ Stifle
- ◆ Elbow
- ◆ Carpus
- ◆ Tarsus



Spinal Palpation

- ◆ Cervical range of motion
- ◆ Axilla



Conscious Proprioception

- ◆ Spinal reflexes as needed



Recumbent Palpation

- ◆ Evaluation of joints
 - Effusion
 - Range of motion
 - Instability
 - Crepitation
 - Pain
- ◆ Palpation of long bones

Thoracic Limb

- ◆ Phalanges
 - Nail beds
 - Interdigital space
- ◆ Metacarpal bones
- ◆ Radius/Ulna
- ◆ Humerus
- ◆ Scapula



Young Dog Diseases



Elbow Dysplasia

- ◆ Medial coronoid disease
- ◆ Ununited anconeal process
- ◆ Osteochondritis dissecans
- ◆ Incongruity

Elbow Dysplasia

- ◆ Pain on extension of elbow
- ◆ Internal and external rotation
- ◆ Weight bearing lameness
- ◆ Effusion
- ◆ Muscle atrophy



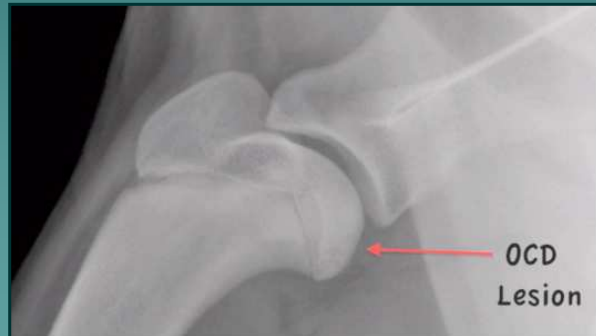
Elbow Dysplasia

- ◆ Diagnostics
 - Examination
 - Radiographs
 - CT/MRI
 - Arthroscopy
- Prognosis?!



Shoulder OCD

- ◆ Pain on flexion of shoulder
- ◆ Weight bearing lameness
- ◆ Muscle atrophy



Shoulder OCD

- ◆ Treatment
 - Arthroscopy!!!
 - Overall good prognosis



Panosteitis

- ◆ Onset prior to 1 year of age
 - Exception: GSD
- ◆ Shifting weight bearing lameness
- ◆ Ulna most commonly affected
- ◆ Supportive care

Panosteitis



Hypertrophic Osteodystrophy

- ◆ Metaphysis
 - “double physis”
- ◆ Unknown etiology
- ◆ Mild to debilitating disease process
- ◆ Prognosis guarded to good

Hypertrophic osteodystrophy



Elbow/Shoulder Luxation

- ◆ Small dogs
- ◆ Congenital
- ◆ Prognosis dependent



Mature Dog Diseases



Carpal Hyperextension

- ◆ Mature, active dog
- ◆ Sheepdogs over represented
- ◆ Repetitive stress syndrome
- ◆ Palpate accessory carpal bone



Carpal Hyperextension

- ◆ Diagnosis
 - Examination
 - Stress radiographs
- ◆ Treatment
 - Conservative
 - ◆ Typically does not work
 - Surgery
 - ◆ Arthrodesis

Shoulder Tendinopathy

- ◆ Biceps tenosynovitis
- ◆ Supraspinatus mineralization
- ◆ Infraspinatus contracture
- ◆ Medial instability

Shoulder Tendinopathy

- | | |
|---------------|---------------------------|
| ◆ Diagnosis | ◆ Treatment |
| – Radiographs | – Laser therapy |
| – Ultrasound | – Physical Rehabilitation |
| – MRI | – Acupuncture |
| – Arthroscopy | – Tendon release |
| | – Stem cells |

Arthritis

- ◆ WEIGHT CONTROL!!!!
- ◆ Activity modification
- ◆ Supplements
- ◆ Physical rehabilitation
- ◆ NSAIDS/medical management

Questions?

