

# **COMPUTED TOMOGRAPHY APPLICATIONS**

#### **Head & Neck**

- Chronic Nasal Discharge: polyps/neoplasia fungal/foreign body/ rhinoscopic biopsy guidance
- Chronic Otitis –otitis media/externa, abscess, bulla erosion-TECA/LBO assessment
- Ocular retrobulbar mass etiology
- Sialadenitis / Sialoceles
- Oral Masses
- Dental Disease periapical abscess, oronasal fistula, margins/extent of odontogenic tumors
- Head & Brain Tumors-define borders & assess invasiveness
- Thyroid Masses /Ectopic Thyroid Screening / Parathyroid nodules / Lymph Nodes
- Brachiocephalic Syndrome
- Intracranial Hemorrhage

#### **Thoracic**

- Met Check- more sensitive and specific than radiographs
- Pleural Effusions identify potential etiology, thoracic duct evaluation
- Pneumothorax: +/-pulmonary bullae identification
- Mediastinal & Esophageal Masses
- Hiatal Hernias
- Heart Base & Right Atrial Masses
- Lung Lobe Torsion
- Lung Masses- surgical resectability & metastatic evaluation
- Pulmonary Thromboembolism
- Inhaled Bronchial Foreign Bodies
- Complex Pneumonia

## Musculoskeletal

- Multiple Pelvic Fractures
- Thoracic / Abdominal Wall Masses- invasiveness, surgical resectability & planning
- Bone Disease: Neoplasia vs Osteomyelitis vs Degenerative. Monostotic vs Polyostotic
- Valley Fever disseminated bone lesions
- Elbow Dysplasia UAP/ FMC /Osteochondrosis / Incongruity
- LS Impingement / Cauda Equina Syndrome
- IVDD –myelogram usually not necessary, especially in chondrodysplastic breeds
- Spina Bifida / Encephalocele or Meningomyelocele
- Discospondylitis
- Tarsal/Carpal Fractures
- Angular Limb Deformities Surgical Planning
- Supraspinatus / Biceps Brachii Tendinopathy
- Multiple Myeloma
- Masticatory Myositis



## Abdominal

- Portal Systemic Shunts Gold Standard much more sensitive & specific than operator dependent ultrasound, provides surgical planning for ring size, precise shunt location, identifying coexisting shunts or vascular anomalies
- Pneumoperitoneum / Gastric or Bowel Rupture
- Gastrointestinal Foreign Bodies
- Gastrointestinal Mural Wall Masses / Pyloric Stenosis
- Colonic Polyps
- Mesenteric, Colonic, Splenic Torsion
- Hemoabdomen –Primary Source Plus Met Check
- Metastasis
- Adrenal Tumors Vascular Invasion / Surgical Resectability Evaluation
- Large abdominal masses more sensitive than ultrasound to define margins & origin
- Pancreatitis & Screening for associated thromboembolism
- High Sensitivity for Insulinomas
- Hepatobiliary disease mucoceles biliary obstruction
- Peritoneal effusion evaluation for underlying etiology
- Body Wall Masses invasiveness, surgical resectability evaluation and planning
- Ectopic Ureters
- Hydronephrosis / Hydroureter
- Ureteral or Urethral Obstructions
- Multicentric Lymphadenopathy Screening
- Thromboembolism / Infarctions
- Any Organ Mass: What is involved? Is it resectable? Met Check & Surgical Planning

## Trauma

- Skull & Facial Fractures /TMJ Dislocation & Fractures, 3D Reconstruction & Surgical Planning
- Comminuted Fractures
- Spinal Fractures / Luxation
- Multiple Pelvic Fractures
- Whole Body Scan for Animal Abuse cases -identifies old fractures
- Whole Body Scan for HBC / Other Trauma
- Penetrating Body Cavity Trauma

#### Other

- Migrating Foreign Bodies
- Chronic Draining Tract Contrast Fistulogram
- Intrapelvic Masses
- Fine Needle Aspiration / Biopsy Guidance
- Post-Operative Complications
- Whole Body Screening for Illusive Disease
- CT Myelogram More Sensitive Than Radiography
- Hemoabdomen Presentation (Whole Body Met Check & Surgical Candidate Evaluation)