Feasibility, indications, and radiographically confirmed diagnoses of standing extremity cone beam computed tomography in the horse

Pauwels et al. (2021), in *Veterinary Surgery*

Products
Standing Cone Beam Computed Tomography (CBCT) for equine extremities

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Clinical Background
CBCT is a non-invasive, standing imaging technique that eliminates the need for general anesthesia in equine extremity diagnostics. It provides high-resolution imaging for precise diagnosis and treatment planning.

Aim of Study
To evaluate the feasibility, indications, and diagnostic value of standing CBCT for equine extremities and compare its findings with prior imaging modalities.

Cohort Study
Fifty-eight horses underwent 59 CBCT scans under standing sedation to assess distal limbs, fetlocks, carpals, and tarsals. Cases were categorized by prior diagnosis, suspected lesions, or unknown pathology, with contrast imaging used in 18 cases.

Results

- **73%** of suspected diagnoses were **confirmed or refuted definitively**
- **New diagnoses** made in **56%** of cases without prior findings
- **89%** of pre-diagnosed cases received **additional diagnostic details**
- **Contrast CBCT** improved **joint and soft tissue evaluation**
- **Mean scan time: 14 minutes**, with **high compliance** in **57/58 horses**.

Summary

- **Standing CBCT is a practical, rapid, and reliable** imaging tool for **equine extremities**
- It **eliminates anesthesia risks**, reducing cost and morbidity
- **Enhances preoperative planning** and **surgical decision-making**
- **Contrast CBCT provides critical insights** for **cartilage defects and soft tissue pathology**
- **Recommended for routine orthopedic diagnostics** in equine practice

Link to paper

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