THE TWIG FIX: A MULTIMODAL APPROACH TO CANINE OSTEOARTHRITIS

A real-world case of multimodal management of osteoarthritis in a senior dog

Signalment

- Twig
- 15 yr
- Cattle Dog Mix
- Female, Spayed
- 44 lbs

Presenting Concerns:

- Forelimb lameness
- Osteoarthritis of the elbow and shoulder
- Chronic kidney disease stage 2
- Aversion to medication

Clinical Relevance:

In senior patients, comorbidities such as chronic pain and kidney disease are common and often require a multimodal pain management approach to maintain comfort while minimizing treatment-related risks.

Clinical Background:

Orthopedic evaluation and radiographs confirmed osteoarthritis of the elbow and shoulder. NSAID therapy was initiated with initial improvement in comfort and mobility.

Several months later, routine laboratory monitoring revealed findings consistent with IRIS Stage 2 chronic kidney disease (CKD). At the same time, the owner reported increasing difficulty administering NSAIDs due to medication aversion.

Given the patient's age, renal comorbidity, and compliance challenges, the treatment plan was reassessed with the goal of maintaining mobility while limiting prolonged NSAID exposure.

Treatment Strategy Rationale:

A multimodal management plan was implemented, incorporating weight optimization, activity modification, home mobility support, diet and rehabilitation-based strategies.

Within this framework, Antinol Plus (EAB-277) was introduced as an adjunctive component of the pain management plan. Double-blinded, placebo-controlled clinical trials have demonstrated that EAB-277 significantly improves objective measures of limb function, including peak vertical force (PVF), in dogs with osteoarthritis over a 6-week period.

Additionally, the small, unflavored capsule formulation of Antinol Plus was considered beneficial in this case, given the patient's prior aversion to oral medications and the importance of supporting consistent administration

Antinol Plus Protocol:

Antinol Plus was administered according to labeled directions:

- Loading dose: 2 capsules twice daily for 4 weeks
- Maintenance dose: 1 capsule twice daily thereafter

The supplement was given with meals and introduced without additional major modifications to the existing treatment plan, allowing clearer assessment of clinical response. Owner education emphasized proper administration and adherence to support long-term compliance.

Clinical Outcomes & Quality of Life:

After approximately eight weeks of supplementation, gradual but clinically meaningful improvements were observed. In-clinic evaluation demonstrated improved gait quality, greater ease rising, and increased voluntary mobility.

Owner-reported observations mirrored these findings, including improved daily comfort, enhanced function during routine activities, and increased engagement within the home environment. These changes were associated with a perceived improvement in overall quality of life.

No adverse effects were reported. Serial laboratory monitoring demonstrated stable renal parameters, with no progression beyond previously documented Stage 2 CKD during the observation period.

Improved ease of administration compared to prior NSAID therapy contributed to better compliance and consistent long-term use.

Discussion:

This case illustrates the therapeutic complexity frequently encountered in geriatric patients with concurrent osteoarthritis and chronic kidney disease. While NSAIDs remain a cornerstone of osteoarthritis management, long-term use in patients with renal compromise requires careful monitoring and individualized risk–benefit assessment.

In this patient, the addition of Antinol® Plus within a structured multimodal plan was associated with meaningful improvements in mobility and comfort without adverse laboratory findings. Because no additional major changes were made at the time of supplementation, clinical improvements could be evaluated within a relatively stable treatment framework.

Although objective force plate analysis was not performed in this case, the observed clinical progression was consistent with outcomes reported in controlled trials evaluating Antinol Plus (EAB-277) in canine osteoarthritis populations (Kampa et al., 2023; 2024).

As with all chronic conditions, therapeutic response is individualized, and ongoing reassessment remains essential.

Key Clinical Takeaways:

- A multimodal pain management strategy is essential in geriatric patients with concurrent osteoarthritis (OA) and chronic kidney disease (CKD) to maintain comfort while helping to minimize the risks associated with sustained NSAID therapy.
- Regular reassessment and laboratory monitoring allows for adjustment of therapy as the patient's medical needs change.
- Antinol Plus functioned as an evidence-supported adjunctive therapy, contributing to improved mobility and quality of life within the broader pain management plan.
- Ease of administration improved compliance, highlighting the importance of practical considerations in chronic pain management.

Evidence Snapshot Box for GP's

Kampa et al., 2023

- **Design:** Double-blinded, placebo-controlled, block-randomized
- **Compared:** PCSO-524 (Antinol), EAB-277 (Antinol Plus), Glucosamine/chrondroitin sulfate, NSAID (Carprofen) and placebo.
- **Evaluated:** Peak vertical force (PVF)
- **Results:** Both PCSO-524 (Antinol), EAB-277 (Antinol Plus),showed statistically significant improvements in PVF at 4 and 6 weeks, comparable to carprofen. Glucosamine/chondroitin did not.
- **Safety:** No clinically relevant lab abnormalities.

Kampa et al., 2024

- **Design:** Blinded, placebo-controlled clinical trial
- **Compared:** EAB-277 (Antinol Plus), 4CYTE™ Biota orientalis lipid extract, NSAID (Meloxicam) and placebo
- **Evaluated:** Peak vertical force (PVF)
- **Results:** Both meloxicam and EAB-277 (Antinol Plus) showed significant improvements in PVF at 6 weeks. 4CYTE™ Biota orientalis extract did not.
- **Safety:** No clinically relevant lab abnormalities.

Senior Dog Veterinary Society

Antinol+