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# THE NEXT DECADE WITHOUT SECRETS

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# PROCEEDINGS BOOK



**CONFERENCE PROCEEDINGS BOOK**

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***RESUMOS EM LIVRO DE ATAS DE  
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## **LACK OF SUPPORT FOR NON-CONVENTIONAL (ALTERNATIVE) THERAPIES IN TREATING OSTEOARTHRITIS-ASSOCIATED PAIN IN CATS - A SYNTHESIS OF THE AVAILABLE EVIDENCE**

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Osteoarthritis (OA), or degenerative joint disease (DJD), is common in older cats and associated with pain, activity impairment, and behavioural changes (1). Recent reviews consider acupuncture as a valid alternative for feline pain management (2,3). However, other veterinary therapeutic guidelines have evolved from considering acupuncture “compelling and safe” in 2015 to lack of “evidence-guided studies” in 2022 (4,5). In light of this, the efficacy of non-conventional (alternative and complementary) therapies (NCTs), as stand-alone treatments or in combination with conventional approaches, for feline OA/DJD pain management, warrants assessment.

This study aimed to assess the available scientific evidence of efficacy of frequently used NCTs, as well as conventional therapies, for managing OA/DJD pain in cats. A scoping review was conducted by:

1) Searching PUBMED, Scopus and Web of science (core collection, KCI-Korean and SciELO) for keywords regarding conventional (anti-NGF or anti-Nerve growth factor antibody; non-steroidal anti-inflammatory drug or NSAID or meloxicam or robenacoxib) and non-conventional (acupuncture; chiropractic; cannabinoids, cannabidiol or CBD; homeopath\*; low-level laser therapy, LLLT or photobiomodulation; pulsed electromagnetic field or PEMF; transcutaneous electrical nerve stimulation or TENS) therapies, combined with cats and osteoarthritis\* or degenerative joint disease or DJD, and pain; Reports were screened, initially by removal of the duplicates, followed by title and abstract analysis and elimination of records that did not agree to previously established inclusion and exclusion criteria. Retrieved full-text articles were then evaluated for eligibility according to these criteria;

2) Assessing risk of bias and methodological quality according to 15 parameters and a scoring system;

3) Estimating treatment efficacy by analysing outcome measures for pain (questionnaire-based pain scales including Client Specific Outcome Measures (CSOM), Feline Musculoskeletal Pain Index (FMPI), Montreal Instrument for Cat Arthritis Testing for use by caretaker/owner (MI-CAT(C)), or veterinarians (MI-CAT(V), Visual Analog Scale (VAS)), activity and mobility data, behaviour modifications and overall quality of life scores.

Initial database search (September 2023) retrieved 556 records. After removal of duplications and screening for scope and eligibility, 18 studies were included for review. Studies ranged from 2006 to 2023, exploring the effect of robenacoxib (1 Randomized Control Trial, RCT), meloxicam (12 studies: 10 RCT, 1 Case series, 1 case control), anti-NGF antibodies (4 studies: 4 RCT), and cannabinoids (1 Case study). Despite heterogeneous methodological quality and risk of bias of individual studies, data suggest efficacy of the NSAIDs meloxicam and robenacoxib, as well as anti-NGF antibodies for treating pain in OA/DJD cats. No original study was identified for most NCTs (acupuncture, chiropractic, homeopathy, LLLT, PEMF and TENS) and not enough evidence was found for the use of cannabinoids.

Our meta-scientific approach highlighted that, while there is published evidence supporting the use of NSAIDs (robenacoxib and, to a smaller extent, meloxicam) and anti-NGF antibodies for OA/DJD pain management in cats, this cannot be found for acupuncture, cannabinoids, chiropractic, homeopathy, LLLT, PEMF or TENS. These findings concur with a recent bibliometric trend analysis showing the dearth of veterinary research on NCTs (6). Future randomized controlled studies are necessary for assessing NCTs efficacy – or that of any other candidate therapeutic approach – before considering their clinical application in OA/DJD-associated pain in cats.

## Keywords

Osteoarthritis; evidence-based medicine; pain; cats

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