and Signs Pain Scale (S-LANSS); and, 3. factors associated with NP symptoms as measured by the mPD-Q.

Methods: Eligible participants were members of an established population-based OA cohort with chronic symptomatic knee OA. A standardized questionnaire was mailed to 426 cohort members to assess NP symptoms (mPD-Q, S-LANSS); osteoarthritis status (WOMAC, Von Korff Chronic Pain Grade); psychological factors including depression (Center for Epidemiological Studies Depression Scale), anxiety (Hospital Anxiety and Depression scale) pain catastrophizing (Pain Catastrophizing Scale), and sleepiness (Epworth Daytime Sleepiness scale); co-morbid medical conditions; possible confounding neurological conditions; and medication use. The cut-point score ($\geq$19) identified in other chronic pain populations was used to identify NP symptoms ('NP range' scores) in this study. The proportion of knee OA participants with mPD-Q scores in the NP range was calculated using a 95% confidence interval (CI). Spearman's correlation between continuous mPD-Q and S-LANSS scores was examined. Potential correlates of NP symptoms were first assessed using bivariate analysis, followed by logistic regression modeling.

Results: Out of 426 cohort members who were sent a study questionnaire, 259 were deemed eligible to participate. The response rate among eligible cohort members was 66% (171/259). The proportion (95% CI) of participants with mPD-Q scores in the NP range was 0.28 (0.21-0.35). After removal of participants with neurological conditions, 0.19 (0.12-0.29) still had scores in the NP range. Continuous mPD-Q scores were highly correlated with continuous S-LANSS scores. NP range scores were strongly associated with OA severity, depressive and anxious symptoms, pain catastrophizing, and a higher frequency of neurological conditions, and chronic back or hip pain with radiation down either leg ('pain radiation'). On multivariable analysis, pain intensity, 'pain radiation', and neurological conditions were independently related to NP range scores.

Conclusions: A substantial proportion of older adults with chronic symptomatic knee OA had symptoms of NP on the mPD-Q suggesting neuropathic mechanisms may be contributing to their pain experience. This subgroup of people may benefit from further evaluation for NP and consideration of NP medications. Validation work is ongoing on the mPD-Q, which may serve as a clinically feasible tool to aid the identification of NP in people with OA.

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PERIPHERAL EFFECTS OF ENDOGENOUS LIGANDS IN THE RAT INFLAMED JOINT MODEL

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Purpose: Selective activation of peripheral receptors has the important advantage of providing effective analgesia without side effects typically associated with centrally acting drugs. Several data suggest that both opioid and NMDA receptors are localized at peripheral level, and drugs acting on these receptors may produce antinociception after topical administration, however, the antinociceptive effect of endogenous ligands at these receptors is poorly clarified. It is also well known that the organism can express very effective antinociception in different circumstances by releasing of various endogenous ligands. The goal of this study was to determine the antinociceptive potency of the endogenous opioid peptide, endomorphin-1, and the endogenous NMDA receptor antagonist, kynurenic acid and their interaction at peripheral level in the rat inflamed joint model.

Methods: Mechanical hypersensitivity was produced by injection of carrageenan (300μg/20μl) into the tibiotarsal joint of the right hind leg. The mechanical pain threshold, the withdrawal from mechanical stimulation to the plantar aspect of the hindpaws, was

assessed by logarithmic series of calibrated von Frey monofilaments (0.064-110 g). Endomorphin-1 (30, 100 and 200 μg), kynurenic acid (30, 100, 200 and 400 μg) and their combinations in a fixed-dose ratio: (1:1) were given into the inflamed joint 3 hours after the induction of inflammation, and the pain threshold was determined repeatedly for 75 min after the drug administrations. To determine the changes in the size of the inflamed joint, the cross section area of ankle joint was also calculated.

Results: None of the treatments influenced the degree of edema. Neither endomorphin-1 nor kynurenic acid administered to the inflamed joint influenced the pain threshold at the non-inflamed side. Both ligands produced dose-dependent anti-hyperalgesia, and the highest doses caused prolonged effect. Endomorphin-1 had higher potency (ED50 value was 112 μg [CI: 80-146]) compared to kynurenic acid (ED50 value was 204 μg [CI: 160-251]). The coadministration of endomorphin-1 with kynurenic acid caused potentiated and/or prolonged antinociceptive effect. The ED50 value of the combination was 141 μg [CI: 83-182], which did not differ significantly from the theoretically additive value (ED50 145 μg [CI: 68-237]), thus the interaction between these ligands is additive. None of the treatments caused any sign of side-effects.

Conclusions: This study has shown that the intra-articularly administered endogenous μ-opioid receptor agonist EM1 and the NMDA receptor antagonist KYNA dose-dependently decreased the mechanical allodynia without signs of systemic side effects. The coadministration of these ligands produced additive interaction, thus a decreased dose of each drug can lead to effective antinociception. Furthermore, we did not find any changes on the normal side. Therefore, we may exclude systemic antinociceptive effects of these ligands. These results suggest an important direction for the development of pain strategies that focus on the coadministration of different endogenous ligands at peripheral level.

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VALIDITY OF PAIN ASSESSMENT METHODS IN THE EXPERIMENTAL DOG POND-NUKI MODEL

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Purpose: To evaluate the construct validation of behavioural and physiologic tools to measure orthopaedic pain induced in an experimental canine osteoarthritis (OA) model. We hypothesized that these methods will present different validity and reliability between placebo-controlled and anti-resorptive (tiludronate)-treated dogs. This drug was chosen for its potential as pain-killer without sedative activity.

Methods: This prospective randomized blinded study was performed on healthy adult dogs divided into two groups: Group 1, eight control dogs, and Group 2, eight tiludronate-treated dogs, 2 mg/kg, subcutaneous. Under standardized procedures, transection of the right anterior cruciate ligament was carried out at Day (D) 0. Treatments were repeated every two weeks from D0 to D56. Two observers, blinded to treatment, assessed pain using the visual analog scale (VAS) and multiparametric pain scale (Standardized Technician Arthritis Pain Scale [STAPS]/Observer 1 and Standardized Veterinarian Arthritis Pain Scale [SVAPS]/Observer 2). Objective methods comprised podobarometric gait analysis to record peak vertical force (PVF), locomotor activity record-