Thirty-nine (70.9%) patients wished to extend W-TENS treatment for 3 additional months. Only one patient discontinued this additional period and results obtained at M3 remained stable at M6.

Conclusion: In this study, W-TENS was more effective and better tolerated than WO in the treatment of nociceptive KOA chronic pain and should represent an interesting non-pharmacological alternative to WO.

Acknowledgements: We gratefully thank P. Fardellone (Amiens), E. Coudreyre (Clermont-Ferrand), Y. Donazzolo (Gieres), A. Amouzougan (Saint-Etienne), L. Grange (Grenoble), T. Conrozier (Belfort), E. Senbel (Marseille), J.P. Sanchez (Billere), R. Forestier (Aix-les-Bains), H. Bard (Paris) and E. Gibert (Ivry-sur-Seine) for their active contribution throughout arthroTENS study

Disclosure of Interests: Emmanuel Maheu Speakers bureau: TRB chemedica, Consultant of: SUBLIMED, Moirans, FRANCE; Sandrine Soriot-Thomas Speakers bureau: Grunenthal, Consultant of: SUBLIMED, Moirans, FRANCE;

Grunenthal

Kyowa Kirin pharma, Grant/research support from: Grunenthal

Sanofi

Teva

Mylan

Therable, Eric Noel Consultant of: SUBLIMED, Moirans, FRANCE; Eric Lespes-sailles Consultant of: SUBLIMED, Moirans, FRANCE; Bernard Cortet Consultant of: SUBLIMED, Moirans, FRANCE;

DOI: 10.1136/annrheumdis-2021-eular.2086

POS0280

ASSOCIATION OF COMPLEMENTARY AND ALTERNATIVE MEDICINE USE WITH KNEE SYMPTOMS AND KNEE STRUCTURAL CHANGES OVER 2.6 YEARS: A POPULATION-BASED COHORT STUDY OF TASMANIAN OLDER ADULTS

Z. Wang¹, G. Jones¹, D. Aitken¹, S. Balogun², Z. Zhou¹, L. Blizzard¹, F. Cicuttini³, B. Antony¹ on behalf of Musculoskeletal group. ¹Menzies Institute for Medical Research, University of Tasmania, Hobart, Australia; ²College of Health & Medicine, Australian National University, Canberra, Australia; ³Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia

Background: There is increasing use of complementary and alternative medicines (CAMs) alone or as an adjuvant therapy to conventional palliative medicines.¹ However, there remains clinical uncertainty about the benefit of CAMs in the management of osteoarthritis in older population.

Objectives: To describe the association between CAM use (alone or in combination with conventional analgesics) with knee symptoms and structural changes amongst a representative sample of Tasmanian older adults.

Methods: A total of 1,099 participants were selected from the Tasmania Older Adult Cohort Study (TASOAC), an ongoing prospective population-based study. Exposure to CAM and conventional medications was classified into four categories according to the national drug code directory:² CAM only, conventional analgesics only, both CAM and conventional analgesics, and neither CAMs nor conventional analgesics. Knee pain was assessed using the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), and a 1.5-T MRI of the right knee was performed at baseline and follow-up (around 2.6 years). Longitudinal associations were assessed using mixed effect linear models.

Results: At baseline, participants' mean age was 63, 86.5% (n=951) reported any medication use. The prevalence of CAM use was 35.0% and of conventional analgesics was 58.6%. Over follow-up, the analgesic only group had a significant increase in WOMAC pain, function, and stiffness scores compared to those who took neither CAMs nor conventional analgesics. There was a statistically significant femoral cartilage volume loss across all four groups, and no statistical difference was found between participants who takes both CAMs and analgesics group and the reference group, but participant in the CAM only or the analgesics only groups loss statistically significant more femoral cartilage volume than the reference group (Table 1).

Conclusion: CAM use alone or in combination with conventional analgesics may associate with slower progression of knee pain. Conclusive evidence on the longitudinal benefits of CAM in the management of osteoarthritis among older adults warrants more studies.

REFERENCES:

- [1] Steel A, McIntyre E, Harnett J, et al. Complementary medicine use in the Australian population: Results of a nationally-representative cross-sectional survey. *Sci Rep* 2018;**8**:17325.
- [2] National Center for Health Statistics. Long-term Care Drug Database System: Drugs by NDC Class Code, Drug Code and Name 2007 Available from: <https://www.cdc.gov/nchs/data/nhds/DrugsbyNDCClass3.pdf> [accessed date: 2020 23 December].

Table 1. Association of change in clinical knee symptoms and knee structural changes over 2.6 years with different medications groups.

	Mean change for reference group*	Change for each category, coefficient (95% confident intervals)			Reference group*
		CAMs	Both	Analgesics	
No. of participants	327	128	257	387	327
WOMAC	-0.95	0.04	0.32	0.78	Ref
pain (5-50)	(-1.42, -0.48)	(-0.85, 0.93)	(-0.4, 1.04)	(0.13, 1.43)	
WOMAC function (17-170)	-3.09	1.02	1.39	2.32	Ref
	(-4.52, -1.67)	(-1.7, 3.73)	(-0.81, 3.59)	(0.33, 4.31)	
WOMAC stiffness (2-20)	-0.39	0.15	0.35 (0, 0.7)	0.40	Ref
	(-0.62, -0.17)	(-0.28, 0.58)		(0.09, 0.72)	
Femoral cartilage volume (mL)	-187.98	-113.81	-1.92	-127.19	Ref
	(-228.79, -147.18)	(-192.60, -35.03)	(-65.00, 61.17)	(-186.31, -68.06)	

*Reference group=participants taken neither CAMs nor conventional analgesics

The data were fitted using mixed effect linear models, which were constructed by entering baseline medication group, phase, the interaction between medication group and phase, covariates (baseline age, sex, body mass index [BMI], baseline value of outcome), the interaction between the covariates and phase, random intercept, and random slope on phase (time).

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.2762

POS0281

RUBUS IDAEUS LEAF EXTRACT IMPROVES SYMPTOMS IN KNEE OSTEOARTHRITIS PATIENTS: RESULTS FROM A DOUBLE BLIND RANDOMIZED CLINICAL STUDY

Y. Henrotin¹, R. Le Cozannet², P. Franca-Berthon², R. Truillet³, M. Cohen Solal⁴. ¹University of Liège, Musculoskeletal Innovative Research Lab, Liège, Belgium; ²Naturex SA, Taste & Wellbeing, Avignon, France; ³Atlantstat, Biostatistics, Rezé, France; ⁴Université de Paris, Rheumatology, Paris, France

Background: Osteoarthritis (OA) is the most common cause of disability in older adults. Currently, the aim of the patient management is to reduce symptoms and to improve quality of life using therapeutic modalities with no adverse effects (1). Unfortunately, the first line treatments of OA symptoms remain nonsteroidal anti-inflammatory drugs (NSAIDs) and paracetamol which if long-term administration are associated with severe adverse effects. Therefore, we need of save alternative to manage chronic OA symptoms. One candidate is *Rubus idaeus* (raspberry) leaf extract rich in flavonoids and phenols known to inhibit inflammatory responses.

Objectives: The aim of this study was to investigate the effects of a 12-weeks intervention with an ethanolic extract from *Rubus idaeus* leaf on symptoms of knee OA.

Methods: The study was a randomized, double-blind, placebo-controlled, monocentric trial of 198 subjects with femoro-tibial OA. Subjects were randomized equally to receive one daily treatment during 3 months either of 1 cap of *Rubus idaeus* leaf extract 400mg, or 200mg or placebo (maltodextrine). The main objective of this first exploratory study was to assess pain reduction over time. Pain was measured using different scales from the Western Ontario McMaster osteoarthritis index (WOMAC) to the knee pain VAS.

Results: In the ITT population, *Rubus idaeus* leaf extract 400mg and 200mg after 12 weeks of treatment reduced pain measured by the VAS respectively of -10.93 (1.95) mm and -8.51 (1.92) mm compared to baseline, while placebo group had a -3.84 (1.89) mm reduction. The mean pain decrease induced by *Rubus idaeus* leaf extract was over -7 mm which is clinically relevant, and reached clinically statistical difference compared to placebo with the highest dose (p=0.017; 95% CI, -13.11 to -1.07). Interestingly, subgroup analysis on the participants with a BMI>25, highlighted clinically relevant pain reduction for the 400 and 200mg doses compared to baseline of respectively -13.36 (2.26) mm and -11.25 (2.14) mm (placebo = -0.37