medications (23%). However, more patients with IPR mentioned being dissatisfied with treatment (38% vs. 21%). After adjusting for covariates, patients with IPR reported worse HRQOL, more functional limitations, and reduced work productivity compared to patients without IPR.

Conclusion: IPR is highly prevalent among individuals with knee and/or hip OA in China and is associated with decreased HRQOL and work productivity, impaired function, and treatment dissatisfaction. Developing awareness among healthcare professionals about the presence and potential impact of IPR is important for the ultimate improvement of OA patient management.

PRO mean (SE)	No IPR (N=328)	IPR (N=243)
EQ-5D Index	0.72 (0.01)	0.49 (0.02)
EQ-5D VAS	72.3 (0.85)	65.5 (1.00)
WOMAC Pain Subscale	13.1 (0.78)	22.7 (1.52)
WOMAC Stiffness Subscale	4.2 (0.27)	7.4 (0.51)
WOMAC Physical Function Subscale	44.8 (2.61)	76.9 (5.07)
Work Productivity Loss	30.0 (4.07)	47.5 (10.46)

Multivariate analysis adjusted for age, year since OA diagnosis/follow-up, gender, BMI, number of medication classes, insurance, physician specialty/academic responsibilities, number of affected joints, diabetes, CVD, hyperlipidemia/hypertension, and depression. All differences were statistically significant ($p < 0.05$) except work productivity loss ($p=0.11$)

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FRI0429 UROLITHIN B ATTENUATES THE INFLAMMATORY AND NITROSATIVE STRESS ON INTERLEUKIN-1 INDUCED CHONDROCYTES

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Background: Osteoarthritis (OA) is one of the most common degenerative disorders with cartilage degradation especially to the elderly resulting in disability. Many inflammatory cytokines involve the pathogenesis of the OA and causes destruction and decomposition of articular cartilage, including interleukin 1 beta (IL-1 β). Urolithin B is a small polyphenolic compound, produced by gut flora from ellagitannins-rich foods, such as pomegranate, strawberries, raspberries, etc. Urolithin B has been documented in anti-inflammatory and antioxidant properties. However, the mechanism underlying the effects of Urolithin B on IL-1 stimulated human osteoarthritis (OA) chondrocytes remains unrevealed

Objectives: The aim of this study was to investigate the biologic effects of Urolithin B on OA models and associated mechanism.

Methods: Primary culture of human chondrocyte, knee joint obtained from total knee replacement of patients with osteoarthritis, were used IL-1 β induced and treated with/without 100 μ M Urolithin B for 24 hours respectively. Total cell lysates were collected for western blotting to analyze the catabolic molecules. Culture medium were collected for gelatin zymography to analyze the secretion of MMP 2 and 9.

Results: Urolithin B inhibits the overexpression of not only inflammatory marker COX2 and nitrosative marker NOS2, but also matrix metalloproteinases (MMPs)-1, -3, 13 in IL-1 β induced chondrocytes by western blotting. It also restored the IL-1 β induced glycosaminoglycan degeneration in ex vivo articular cartilage evaluated by Safranin O stain. Meanwhile, Urolithin B can activate autophagy, increasing LC3 II/I ratio, in IL-1 β induced chondrocytes.

Conclusion: Collectively, the study demonstrates that Urolithin B may be of value in the treatment of osteoarthritis through its anti-inflammatory, anti-oxidant and anti-proteinase activities.

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Title:

Urolithin B attenuates the inflammatory and nitrosative stress on interleukin-1 induced chondrocytes

Key words: Urolithin B, Osteoarthritis, chondrocytes, Cyclooxygenase 2, Nitric Oxide Synthase 2, matrix metalloproteinase

Disclosure of Interests: None declared

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FRI0430 THE NOVEL, INTRA-ARTICULAR CLK/DYRK1A INHIBITOR LORECEVIVINT (LOR; SM04690), WHICH MODULATES THE WNT PATHWAY, IMPROVED RESPONDER OUTCOMES IN SUBJECTS WITH KNEE OSTEOARTHRITIS: A POST HOC ANALYSIS FROM A PHASE 2B TRIAL

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Background: Lorecivint (LOR; SM04690) is a small-molecule, intra-articular (IA) CLK/DYRK1A inhibitor that modulates the Wnt pathway¹ and has demonstrated some beneficial effects on patient-reported outcomes (PROs) relative to placebo (PBO) in two Phase 2 knee OA trials. With subjective measures such as PROs, meaningful benefits may be better characterized by representation as discrete threshold responses rather than by changes in mean point estimates.

Objectives: To conduct a post hoc analysis of subjects in a 24-week Phase 2b study by measuring the proportions of subjects treated with LOR and placebo (PBO) who achieved 30%, 50%, or 70% threshold responses of improvement over baseline in Pain Numeric Rating Scale (NRS), Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) Pain, WOMAC Function, and Patient Global Assessment (PtGA) at Week 12. Results from the Phase 3-selected dose of 0.07mg LOR are presented here.

Methods: Subjects had ACR-defined knee OA, Kellgren-Lawrence (KL) grades 2–3, and Pain NRS scores ≥ 4 and ≤ 8 in the target knee and < 4 in the contralateral knee. A single 2mL IA injection of 0.03mg, 0.07mg, 0.15mg, or 0.23mg LOR, or vehicle PBO was given in the target knee at baseline. The proportion of subjects meeting 30%, 50%, or 70% threshold responses over baseline in the weekly average of daily Pain NRS [0–10], WOMAC Pain [0–100], WOMAC Function [0–100], and PtGA [0–100] at Week 12 was determined. The odds ratios (OR [95% CI]) of achieving each threshold response level were calculated and compared between LOR and PBO.

Results: In total, 635 subjects (91.4%) completed the study (mean age 59.0 $\pm$ 8.5 years, BMI 29.0 $\pm$ 4.0 kg/m², female 58.4%, KL grade 3 57.3%). At Week 12, treatment with 0.07mg LOR significantly ($P < 0.05$) increased the odds of a 30% threshold response in Pain NRS (OR 2.47 [1.45, 4.19]) and WOMAC Function (OR 1.86 [1.10, 3.12]) and a 50% threshold response in WOMAC Pain (OR 1.79 [1.06, 3.03]) and PtGA (OR 2.28 [1.25, 4.16]). Numerically, more (not statistically significant) subjects achieved a 70% threshold response in all PROs. All improvements were maintained through Week 24.

Conclusion: In this post hoc analysis, LOR-treated subjects reported greater improvements in PRO threshold responses versus PBO from Week 12 through Week 24. LOR demonstrated significantly higher odds of achieving and maintaining improvements in PROs at 30% and 50% thresholds. Phase 3 studies of 0.07 mg LOR are ongoing.

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Figure 1. Percentage of Phase 2b trial subjects in the LOR and placebo (PBO) groups responding to treatment with 30%, 50%, or 70% threshold responses over baseline at Week 12. The Pain NRS and WOMAC Function outcomes are shown. * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ vs. PBO by logistic regression using the Full Analysis Set and non-responder imputation.

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Infection-related rheumatic diseases

FRI0431

PROFILE OF INFECTIOUS SPONDYLODISCITIS ACCORDING TO THE SITE: UNIFOCAL VERSUS MULTIFOCAL

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Background: Infectious spondylodiscitis is a therapeutic emergency and is a current problem. It can affect the different levels of the spine. Multifocal forms, touching several floors, however remain rare.

Objectives: To compare the clinical, biological, radiological and therapeutic aspects of unifocal versus multifocal spondylodiscitis.

Methods: This is a retrospective study of 113 patients admitted to our service over a period of 20 years [1998-2018]. The diagnosis of spondylodiscitis was made on the basis of clinical, biological, radiological and bacteriological data. We have divided our population into two groups: unifocal and multifocal spondylodiscitis.

Results: Spondylodiscitis was more frequently unifocal (75.2%) than multifocal (24.8%). The average age of the patients was 55.8 years. There were 62 men and 51 women. There was no difference in age and sex between the two groups ($p=0.5$ and $p=0.8$, respectively).

Diabetes was more frequent in the group of multifocal spondylodiscitis but with no statistically significant difference ($p=0.4$). No statistically significant difference between the two groups regarding the start mode ($p=0.7$), the schedule ($p=0.3$), the presence of neurological signs ($p=0.7$), fever ($p=0.2$), impaired general condition ($p=0.6$) and biological inflammatory syndrome ($p=0.6$).

Cervical and dorsal spine involvement was more common in multifocal spondylodiscitis ($p=0.02$ and $p=0.01$; respectively). There were 11 spondylodiscitis involving 2 floors (cervical and dorsal: 2 cases, cervical and lumbar: 3 cases, dorsal and lumbar: 6 cases) and 3 spondylodiscitis involving 3 floors.

Radiologically, the presence of vertebral fracture and involvement of the posterior arch was more frequent during the multifocal form ($p=0.03$ and $p=0.001$; respectively). The frequency of para-vertebral abscesses, epiduritis and the presence of spinal cord compression were similar in the two groups ($p=0.6$; $p=0.7$ and $p=0.2$, respectively).

Tuberculosis was more frequent during the multifocal form ($p=0.05$) and brucellosis during the unifocal form ($p=0.03$). Disco-vertebral biopsy was performed in 79 cases. It was more often contributory during multifocal spondylodiscitis ($p=0.03$).

The occurrence of immediate complications was more frequent in multifocal spondylodiscitis but with no statistically significant difference ($p=0.2$).

Conclusion: Multifocal spondylodiscitis is seen mainly in immunocompromised subjects. Our study found that diabetes is the most common factor in immunosuppression. Note also the predominance of involvement of the posterior elements, tuberculous origin and immediate complications.

Disclosure of Interests: None declared

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FRI0432

INTEREST OF IMAGING IN THE DIAGNOSIS OF INFECTIOUS SPONDYLODISCITIS (ABOUT 113 CASES)

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Background: Infectious spondylodiscitis is a diagnosis and therapeutic emergency. Its clinical presentation can be insidious and standard radiographs can be falsely reassuring. This explains the interest of cross-sectional imaging and more particularly magnetic resonance imaging (MRI).

Objectives: To analyse the contribution of imaging in the diagnosis of infectious spondylodiscitis.

Methods: These are 113 cases of spondylodiscitis collected in a rheumatology department over a period of 20 years [1998-2018]. The diagnosis is made on the basis of clinical, biological, radiological and bacteriological data.

Results: Our population was divided into 62 men (54.9%) and 51 women (45.1%) ($p=0.8$) with an average age of 55 years [16-86]. Predisposing factors were found in 52.2% of cases: diabetes (23%), neoplasia (2.7%), hepatopathy (5.3%), long-term corticosteroid therapy (1.8), recent surgery (3.5%), history of tuberculosis (2.7%) and consumption of unpasteurized dairy products (28.3%).

The approximate time between onset of symptoms and diagnosis ranged from 0.23 to 24 months (median 3 months). Impaired general condition was observed in 81% of the cases and fever in 34.5% of the cases. Radiculargia was found in 46% of the cases and a neurological deficit was noted in 16% of the cases. Biological inflammatory syndrome was found in 91.2% of the cases.

Standard radiographs of the spine were abnormal in 85% of cases, showing disc space narrowing (72%), irregularity of the vertebral plates (35.5%), erosions (13.1%) and para-vertebral spindle (4.7%). CT and spinal MRI were performed respectively in 57.5% and 70.8% of cases and revealed: erosions (46.2%), mirrored geodes (16.9%), para-vertebral abscess (57.5%), epiduritis (71.3%) and spinal compression (26.3%). The lumbar spine was the most affected (55.8%), followed by the dorsal spine (30.1%) and the cervical spine (8.8%). The infectious spondylodiscitis was multifocal in 24.8% and multi-stage in 12.4% of cases.

A disco-vertebral biopsy was performed in 70% of cases and was contributory in 44.3% of cases. The causative organism was tuberculosis in 55.8% of cases, brucellosis in 12.2% of cases and pyogenic germs in 23% of cases.

Conclusion: Imaging plays an important role in the diagnosis of spondylodiscitis. MRI is considered the key examination, capable of mapping injuries and detecting potentially serious neurological complications. The importance of imaging the entire spine to detect multifocal forms should also be emphasized.

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FRI0433

HAS THE PROFILE OF INFECTIOUS SPONDYLODISCITIS CHANGED IN 20 YEARS?

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Background: Infectious spondylodiscitis represents 2 to 4% of osteoarticular infections. Their incidence is constantly increasing. Early microbiological diagnosis and targeted multidisciplinary management are the main prognostic factors for infectious spondylodiscitis.