Conclusion: 1.Repeated VES by IAHA were found to have a long term effect of alleviation of symptoms, improvement of functions and joint preservation and thereby prevention of surgery for a long period.
2.VHMW-HA have a longer duration of action than HMW-HA.
3.Repeat Injections bring about a similar duration of effect as the previous injection.

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Disclosure of Interests: Anish Kumar Aggarwal Speakers bureau: Eli Lilly, Pfizer, Janssen of J&J, Dr. Reddy's, Intas, Torrent, Emcure & Alkem., NAKUL AGGARWAL: None declared, DIPIKA JAIN: None declared

DOI: 10.1136/annrheumdis-2020-eular.3734

23. Osteoarthritis

AB0853 IMPACT OF ULTRASONOGRAPHY-DETECTED PES ANSERINE BURSTITIS ON PAIN AND FUNCTION IN PATIENTS WITH PRIMARY KNEE OSTEOARTHRITIS

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Background: Pes anserine bursitis (PAB) is one of the most common causes of knee pain. Hence, this study aimed to compare the pain and function among all primary knee osteoarthritis (KOA) patients with or without ultrasonography-detected PAB and the associated clinical and radiological findings.

Objectives: To compare pain, function, and clinical and radiological findings among primary KOA patients with or without ultrasonography-detected PAB.

Methods: A single-center cross-sectional study was conducted on 245 patients with primary KOA. Patients with more symptomatic knee examined by musculoskeletal ultrasound (MSUS), then according to the presence or absence of PAB, the patients were categorized into two groups. To differentiate between grades of inflammation of PAB on ultrasonography, the authors developed a semi-quantitative scale (0–2) as follows: Grade 0, normal hyperechoic picture of pes anserine tendons without tendonitis or bursitis; Grade 1, mild hypoechogenicity and/or mild swelling or mild loss of fibrillar pattern of the pes anserine tendon and/or mild anechoic effusion related to the tendons; and Grade 2, marked hypoechogenicity and/or large swelling or marked loss of the pes anserine tendon and/or marked anechoic effusion related to the tendons. Radiological grades of Kellgren–Lawrence were recorded. Pain and functional status was assessed by visual analog scale (VAS), Health Assessment Questionnaire-II (HAQ-II), and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC).

Results: A total of 110 (44.9%) patients were diagnosed with PAB where 91 (82.7%) of them had Grade 1 and only 19 (17.3%) had Grade 2. The presence of PAB was statistically significant related ($P < 0.05^*$) with age, VAS, HAQ-II, WOMAC subscales, synovitis, and radiographic Grades 3 and 4. However, there was no statistically significant difference ($P \geq 0.05$) between KOA patients without PAB and KOA patients with PAB, regarding sex, body mass index, baker cyst, and effusion.

Conclusion: The presence of PAB on MUS is associated with increased pain and disability in KOA. MSUS should be more widely used to establish the association between PAB and symptom severity and disability among KOA patients.

References: None

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.5025

AB0854 METABOLIC FACTORS ASSOCIATED TO CLINICAL HAND OSTEOARTHRITIS IN INDIVIDUALS WITH KNEE PAIN

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Background: There is some evidence supporting associations between metabolic factors, clinical hand osteoarthritis (OA) and radiographic knee OA. However, more studies are needed regarding early knee OA.

Objectives: The aim was to study associations between metabolic factors and clinical hand OA at baseline in a cohort of individuals with knee pain, with and without radiographic knee OA

Methods: In an ongoing five-year longitudinal study of knee pain, hand OA was assessed by clinical examinations in 296 of the included individuals at baseline [1]. BMI, waist circumference (WC) and blood pressure was measured. Body composition was assessed with Inbody 770. Fasting plasma glucose, triglycerides, cholesterol, HDL and LDL-cholesterol and HbA1c was analysed. Metabolic syndrome (MetS) was present if central obesity (WC ≥ 94 cm in men and ≥ 80 cm in women) plus any two of the following factors: raised blood pressure (systolic blood pressure ≥ 130 or diastolic blood pressure ≥ 85 mm Hg or treatment of hypertension), raised triglycerides (≥ 1.7 mmol/L or specific treatment), reduced HDL-cholesterol (men < 1.03 mmol/L and women < 1.29 mmol/L or specific treatment), raised glucose (glucose ≥ 5.6 mmol/L, or type 2 diabetes). Hand strength and self-reported disability of the arm, shoulder and hand (quickDASH) was assessed.

The individuals were divided according to having clinical hand OA or not, according to Altman [1]. The associations between background factors and clinical hand OA were calculated by crude logistic regression analyses, adjusting for age and sex.

Results: Fifty-five percent of the individuals in the study was overweight or obese, 40% had MetS and 23% had radiographic knee OA. In total 34% of the individuals had clinical hand OA. The group with hand OA were older, had higher proportion of body fat, fasting plasma glucose, HbA1C, worse quickDASH score and lower hand strength, table 1. Clinical hand OA was significantly associated to higher age (OR 1.04, 95%CI 1.01-1.07), higher fasting plasma glucose (1.56, 1.05-2.30), worse quickDASH (1.04, 1.02-1.06) and lower hand strength (0.99, 0.99-0.998), but not to proportion of body fat and HbA1c.

Table 1. Descriptives at baseline

	No hand OA Mean (sd)	Hand OA* Mean(sd)	p-value
N	194	102	
Age	51 (9)	53 (8)	0.015
Sex, women, %	69	73	0.374
BMI	26.2 (4.8)	27.1 (4.7)	0.114
Visceral fat area (VFA)	110 (53)	122 (54)	0.070
Percentage of body fat*	30 (9)	32 (8)	0.026
Waist circumference, cm	95 (13)	97 (13)	0.226
Central obesity, %	77	86	0.067
Raised Blood pressure, %	61	65	0.492
Cholesterol (mmol/l)	5.2 (1.0)	5.4 (1.2)	0.317
Triglycerides (mmol/L)	1.0 (0.6)	1.1 (0.7)	0.078
Raised triglycerides, %	9	16	0.075
LDL-cholesterol (mmol/L)	3.4 (1.0)	3.5 (1.1)	0.416
HDL- cholesterol mmol/L)	1.7 (0.4)	1.8 (0.5)	0.352
Glucose (mmol/L)	5.4 (0.5)	5.6 (1.2)	0.010
HbA1c (mmol/L)	36 (3)	38 (6)	0.016
quickDASH	11.5 (12.8)	21.8 (18.6)	<0.001
Hand strength (N)	291 (110)	252 (103)	0.004

Conclusion: In this cross-sectional study, the only metabolic factor associated with clinical hand OA was fasting plasma glucose. Contrary to other studies, there were no gender differences found. The association between development of clinical hand OA and metabolic factors in individuals with knee pain need to be further assessed in longitudinal studies.

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Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2020-eular.2166