

defined by a body mass index (BMI) ≥ 30 . Functional impairment was assessed by the Womac index and Lequesne index.

Results: The study included 186 patients. There were 31 males and 155 females. The mean age was 60 ± 10 years. The percentage of obese patients was 53.8%. The mean age was similar in both groups obese and non obese. There were more women in the obese group compared to the non obese group ($p=0.0001$), more patients who had diabetes mellitus and dyslipidemia ($p=0.002$). Non-obese patients had a shorter duration of symptoms with no statistical significance ($p=0.151$). Obese patients had more involvement of both knees ($p<0.0001$). Obesity did not have an impact on pain severity. Severity of radiological images ($p=0.0001$) were more frequent in obese patients. Functional impairment was similar in both groups. However, the percentage of patients having a very important functional impairment with Lequesne index was higher in obese patients ($p<0.029$). Obese patients also needed more physical therapy sessions ($p=0.035$).

Conclusion: Knee osteoarthritis in obese patients is characterized with the female gender predominance, bilateral knee involvement, and a more severe images on radiographs. Thus the need for better control of weight and the importance of physical activity.

REFERENCES:

[1] Coggon D, Reading I, Croft P, et al. Knee osteoarthritis and obesity. *Int J Obes Relat Metab Disord J Int Assoc Study Obes* 2001; 25: 622–627.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3602

POS1282 VERIFICATION OF MANIFESTATIONS OF SARCOPENIA IN OBESE PATIENTS WITH THREE METHODS FOR BODY COMPOSITION ASSESSMENT

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Background: With new technologies for body composition assessment determining changes lean, muscle and fat mass. Prevention of sarcopenic obesity is timely detection of decrease.

Objectives: Aim of the study was to compare the effectiveness of three methods of body composition assessment such as bioimpedans analysis (BIA), air-replacement bodyplatismography (BodPod) and Dual X-ray absorptiometry Total body program (DXA Total Body) in the verification of reducing of skeletal muscle mass as sign of sarcopenic obesity in obese patients.

Methods: The study group included 95 patients aged 21-69 y.o. (average age 53.9 ± 11.05 years) with $BMI \geq 30.0$ kg/m². The control group included 37 patients aged 37-69 y.o. (average age 50.73 ± 10.6 years) of the same age without obesity with $BMI 20.0-29.9$ kg/m². Body composition was tested using BIA, BodPod and DXA with calculating fat, lean and skeletal muscles mass (kg) and % in all the patients.

Results: According to BIA the groups differ only in fat mass (FM) 42.75 (4.8;6.3) vs. 33.15 (28.4;35.5) kg; $p=0.036$ and did not differ ($p>0.05$) in lean (LM), skeletal muscle mass (SMM) and in % of FM and SMM. According to BodPod analyses groups differed in the FM 3.4 [36.81;69.94] vs 31.02 [23.22;38] kg, $p=0.007$, % FM 45.4 [42.1;53.8] vs 37.7 [28.6;41.1], $p=0.003$ and % LM - 54.6 [46.2;57.9] vs 62.3 [58.9;71.4], $p=0.003$, but had statistically equivalent values of LM 55 [49.48;67.77] vs 40.36 [33.12;49.06] kg, $p=0.19$. According to DXA Total Body analyses statistically significant differences ($p<0.05$) have been identified between the groups in FM and % FM of the hands, feet, trunk, total body ($p>0.05$), but not in LM and % LM ($p>0.05$) (Table 1).

Table 1. Effectiveness of three methods for body composition assessment

INDICATORS	STUDY GROUP	CONTROL GROUP	P
Weight (kg)	106 [96;122]	80 [77;81]	0.00251
BMI (kg/m ²)	37.6 [104;124]	26.8 [24;30]	0.000000
Bod Pod			
% fat mass	45.4 [42.1;53.8]	37.7 [28.6;41.1]	0.003424
% lean mass	54.6 [46.2;57.9]	62.3 [58.9;71.4]	0.003424
fat mass (kg)	43.4 [36.81;69.935]	31.016 [23.223;38.004]	0.006836
lean mass (kg)	55.002 [49.48;67.77]	40.359 [33.122;49.058]	0.185377
BIA			
fat mass (kg)	42.75 [4.8;6.3]	33.150 [28.4;35.5]	0.035771
lean mass (kg)	59.5 [53.95;71.05]	54.850 [49.9;62.6]	0.458312
skeletal muscle mass (kg)	27.9 [23.9;33.2]	25.6 [22;29.3]	0.701678
skeletal muscle mass (%)	45.3 [43.3;47.7]	47.1 [42.3;48.1]	0.415687
DXA Total Body			
total body lean mass (g)	97276 [86062; 109154]	62628 [57839; 85068]	0.602523
total body fat mass (g)	47030 [39300; 56729]	25652 [22164; 36396]	0.009796
total body muscle mass (g)	49861 [42793; 57088]	36426 [32273; 43341]	0.973711

Conclusion: From methods of body composition assessment, air-replacement bodyplatismography (BodPod) is the most sensitive in the verification of skeletal muscle mass reduction in obese patients. This method shows that patients with obesity have a significantly reduced muscle mass compared with normal weight or overweight subjects.

REFERENCES:

- [1] L. A. Marchenkova, V. A. Vasileva, Motor and balance function disorders and possibilities of their correction in patients with obesity and metabolic syndrome // *Lechashchiy vrach*. 2019. № 4. S. 68.
- [2] P. Corbeil, M. Simocheau, D. Rancourt, A. Tremblay, N. Teasdale, Increased risk for falling associated with obesity: mathematical modeling of postural control // *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 2001; 9 (2): 126-136.

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3629

POS1283 SPONDILODISCITIS WITHOUT DOCUMENTED GERM: WHAT THERAPEUTIC MANAGEMENT?

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Background: Spondylodiscitis (SD) is an infectious inflammation that affects the vertebrae, vertebral discs and adjacent structures. It may have a bacterial or non-bacterial etiology. Although analysis has improved and identification of pathogens is highly pursued, in one third of cases, no organism can be identified. **Objectives:** The objective of our work is to describe the epidemiological, clinical and evolutionary profile of SD with no germ identified and management.

Methods: This is a retrospective study including 37 cases of SD with no germ identified, collected in the Rheumatology Department of Farhat Hached hospital in Sousse, Tunisia over a period of 22 years (1998-2020).

Results: The mean age was 59.7 years [18-97 years]. These were 21 men (56.76 %) and 16 women (43.24 %). Spinal pain was the major symptom. The lumbar location was the most frequent in 56.76% of cases. It was a multifocal localization in 21.62%. The imaging allowed the detection of para abscesses -vertebral in 43.24%. An epiduritis was objectified in 54.05%. CT-guided biopsy was performed in 59.46% and it was not conclusive. A bacteriological survey was carried out and came back negative. Spondylodiscitis was presumed to be tubercular and staphylococcal in respectively 62.16 % and 18.92 %. The tuberculosis origin was retained in view of the chronic evolution, the multi-stage damage in the radiological assessment. While staphylococcal SD was retained due to the presence of cutaneous lesion and subacute evolution. Large-spectrum antibiotic therapy was initiated in the other cases. One case was initially considered to be staphylococcal but with epidural and soft tissue extension tuberculosis was then considered to be the cause. The evolution after initiation of adequate antibiotic treatment was interspersed with neurological complications in one case of tuberculosis SD.

Conclusion: Our results show a higher frequency of presumed tuberculosis SD considering the endemicity of our country and the improvement under anti tuberculosis treatment.

REFERENCES:

- [1] Cornett, C. A., and al. Bacterial Spine Infections in Adults. *Journal of the American Academy of Orthopaedic Surgeons*, 24(1), 11–18.(2016)
- [2] Lener, S., and al Management of spinal infection: a review of the literature. *Acta Neurochirurgica*, 160(3), 487–496.(2018)
- [3] Homagk, L., and al SponDT (Spondylodiscitis Diagnosis and Treatment): spondylodiscitis scoring system. *Journal of Orthopaedic Surgery and Research*, 14(1).(2019)

Disclosure of Interests: None declared

DOI: 10.1136/annrheumdis-2021-eular.3649

POS1284 FASCIAL ULTRASOUND: THE CONTEXT FOR DRY NEEDLING TRIGGER POINTS IN TREATMENT OF MYOFASCIAL PAIN, POSTURAL IMBALANCE

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Background: Muscles and fascia are the major source of pain in rheumatic diseases. Dry needling under ultrasound guidance (DN-US) is a crucial therapeutic approach to treat muscle pain [1,2], the definition 'myo-fascial' calls for searching trigger points (TrPs) in fascia to improve the treatment effectiveness.

Objectives: Aim was to evaluate the relevance of fascial ultrasound for DN-US in myo-fascial pain.

Methods: We included 36 patients (21 females, 20-69 years old) with myo-fascial pain different localisations (low back, limbs, shoulder, neck pain), postural imbalance; did DN-US protocol according to R. Bubnov [1]: trigger points were identified according, fine (28G) steel needle DN-US was applied. Additionally considered fascial structures for detecting areas of abnormalities (hypervascularity, heterogeneity, hypomotility, adhesions) aka 'trigger points' and potential nerve compression/irritation and did precise DN-US where appropriate.

Results: In all patients movement restored and pain decreased after muscles DN; in 30 patients additionally we detected and did successful DN-US the