Methods: Comparative cross-sectional analytical study. Considering the patients who had osteoporotic vertebral fractures during 2015, 51 patients who received conservative treatment and 51 patients with surgical treatment (arthrodesis, vertebroplasty/kyphoplasty) were randomly selected. The specific quality of life scale for vertebral fractures due to osteoporosis QUALEFFO and WHODAS were applied. Statistical analysis: synthesis of quantitative data with measures of central tendency, qualitative data frequencies. Qualitative comparisons using chi-square, quantitative according to type of distribution T-student, Mann-Whitney U, Pearson and Spearman correlation, ANOVA analysis of variance with Welch test, Brown-Forsythe and post-hoc analysis with Gamos-Howell. Significance level $p = 0.05$. Protocol was registered in the institutional research committee.

Results: We included 51 patients in the conservative group and 51 in the surgical group (arthrodesis = 27 and vertebroplasty/kyphoplasty 24). The average age was 70.4 (9.8) range from 53 to 96 and 71.6 (9.1) from 53 to 96 y, respectively. No significant difference between both groups by age ($p = 0.53$, student t). However, when dividing by intervention, a significant difference was observed for the conservative (0.019) and arthrodesis (0.001) treatment groups in relation to the average vertebroplasty group. When we analyzed the two groups, a better quality of life was observed in the conservative group ($X = 32.5 \pm 16.9$) than in the surgical group ($X = 38.3 \pm 17.4$; $p = 0.08$). When analyzing by subgroups, a better perception of quality of life was observed in the arthrodesis group (29.03 ± 13.83) in comparison with conservative and vertebroplasty ($X = 48.76 \pm 15.11$; vs. conservative $p = 0.003$; vs. arthrodesis $p = 0.001$). The same behavior was observed for pain, mobility, social and leisure time domains. 17 patients had second fractures, pharmacological osteoporosis treatment was given to 43 patients (11 with second fractures). Hypertension was associated with second fractures ($n = 42$ patients; $p = 0.03$). Age was positively correlated with the perception of quality of life ($r = 0.809$; $p = 001$).

Conclusion: A better perception of quality of life was observed in patients who underwent arthrodesis and conservative management in relation to patients who were treated with vertebroplasty 3 years after the event. The reported performance was better for the domains of the scale in relation to pain, activities of human daily life, housework, mobility, social and leisure time, general health. Age was associated with the perception of quality of life. Hypertension was linked to the incidence of second fractures.

OCs6

PERFORMANCE OF THE "YUBI-WAKKA (FINGER-RING)" TEST AS SELF-SCREENING METHOD FOR SARCOPENIA USING THE SARCOPHAGE, BELGIAN COHORT STUDY

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Objective: Last year, a very original and easy-to-use self-screening method for sarcopenia was introduced by Tanaka et al. The "Yubi-wakka (finger-ring)" test checks whether the maximum non-dominant calf circumference is bigger than the individual's own finger-ring circumference and is used as a screening method for sarcopenia. We aim to measure the performance of this new screening method in a Belgian study by measuring its specificity (Sp), sensibility (Se), positive and negative predictive values (PPV, NPV) against a clinical diagnosis of sarcopenia.

Methods: We applied procedure during the 5-year follow-up examination of the Belgian SarcoPhAge (Sarcopenia and Physical impairments with advancing Age) cohort, a population-based study including individuals aged 65 years and older. Sarcopenia was diagnosed according to the revised criteria of EWGSOP2. Muscle mass was measured by daily-calibrated Dual-Energy x-ray absorptiometry and muscle strength was measured using a calibrated Jamar handheld dynamometer. Participants were asked to apply a self-screening for sarcopenia using the finger-ring test. Participants were classified "bigger", "just fit" or "smaller" based on the comparison between their right calf-circumference and the right finger-ring circumference (formed by the thumb and the forefinger of both hands).

Results: 272 participants were included in this analysis (mean age of 77.5 ± 5.37 years, 53.2% of women), with 32 participants diagnosed sarcopenia according to EWGSOP2 criteria (11.8%). Using a classification with both "just fit" or "smaller" as being at risk of sarcopenia, we found the following results: Se = 68.7%, Sp = 46.2%, PPV = 14.6%, NPV = 91.7% and accuracy = 48.9%. Using the solely criteria of "smaller" as being at risk of sarcopenia, we found the following results: Se = 53.1%, a Sp = 78.3%, PPV = 24.6%, NPV = 92.6% and accuracy = 75.4%.

Conclusion: The overall probability that a participant is correctly classified as sarcopenic using the "Yubi-wakka (finger-ring) test" in our population is increased when the calf-circumference is smaller than the finger-ring circumference of this same participant. This extremely practical method of self-screening of sarcopenia has been shown, for the very first time, to have a moderate sensitivity and acceptable specificity in regards of sarcopenia diagnosis. As comparison, the SARC-F questionnaire, a well-known screening test for sarcopenia has an even lower sensitivity but a better specificity[1].

Reference: 1. Hajaoui M et al. J Am Med Dir Assoc 2019;20:1182

OCs7

CUSTOMIZED POSTURAL REBALANCING IN OSTEOPENIC SUBJECTS WITH PAINFUL DEVIATIONS OF THE SPINE: PRELIMINARY FUNCTIONAL AND DENSITOMETRIC RESULTS

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Objective: Evaluation of the functional and densitometric effects of a personalized postural rebalancing process aimed at improving the static and dynamic postural structure in subjects suffering from osteoporosis and rachialgia. Posture is the result of the functional interaction between the biomechanical, neurophysiological, psychological and psychomotor components of the individual, and is achieved through the tonic reflex contraction of the antigravity muscles. Muscle strength and work affect bone remodeling: according to Wolff's Law, the load modifies the geometric properties of the bone, inducing it to be deposited where needed and reabsorbed where useless, thus contrasting the same load [1].

Methods: Six patients affected by osteopenia, pain and deviations of the spine in kyphosis and/or scoliosis, underwent a morphofunctional examination of posture and an ultrasound bone densitometry by radiofrequency echographic multispectrometry (REMS) [2] at lumbar spine and femur. On the basis of the postural physical examination, a customized program of exercises (the "C.A.MO.® method") was proposed to each patient, aimed to remove any incongruous postural and behavioral scheme and to create a new correct one, lasting one hour to be carried out individually with bi-weekly frequency over 4 weeks. At the end of the program, a new morphofunctional exam and a new REMS analysis were performed to each patient.

Results: All the patients reported a visible improvement of postural structure, a reduction in spine deflections and complete pain relief. Furthermore, 2 subjects of 6 have curiously shown also a slight but