The multivariate analysis adjusted for the following confounders determined at the baseline interview and examination: age; gender; race; Body Mass Index; quadriceps strength; family history of knee replacement, frequent knee bending, physical activity over the past month; varus knee alignment assessed by goniometer; and presence of Hebeden's nodes.
Results: Of the 4982 knees evaluated,1963 (39%) had FKSx. Of knees with FKSx, 49.9% (980/1963) had TF-ROA, compared to 39.8% (1202/3019) in those without FKSx. The multivariate aOR's for the association of knee injury and knee surgery variables with TF-ROA are summarized in Table 1.
Conclusions: Previous knee injury, knee surgery and knee injury resulting in surgery and most types of knee surgery are all strongly associated with TF-ROA in knees both with and without FKSx even after adjusting for potential confounders in this cross-sectional study. These findings and the particulary strong association of ligamentous surgery with TF-ROA in symptomatic knees warrant further investigation in the prospective analysis of OAI and other longitudinal cohorts.

285

COMPARISON OF MEASUREMENT PROPERTIES OF FIVE AT-WORK DISABLITY MEASURES IN PERSONS WITH OSTEOARTHRITIS

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Purpose: Arthritis is not only a significant contributor to absenteeism, but also presenteeism. Improved measurement of productivity losses experienced by workers is needed to better assess the impact of arthritis, in terms of the extent of at-work disability and economic burden. The suitability of existing presenteeism measures for individuals with osteoarthritis (OA) and the comparative psychometric performance of these measures in this population are currently unknown. The present aim is to concurrently compare the measurement properties of five measures of "at-work disability" in a sample of workers with OA.
Methods: Longitudinal data (baseline and 12 month follow-up) of 130 workers with OA were recruited from community and clinical samples. Measures included the Workplace Activity Limitations Scale (WALS), Standard Presenteeism Scale (SPS), Work Instability Scale for Rheumatoid Arthritis (WIS-RA), Endicott Work Productivity Scale (EWPS), and Work Limitations Questionnaire (WLQ). Score distributions (floor/ceiling effects), internal consistency (Cronbach's alpha, KR-20), construct validity (Spearman correlation coefficients, ANOVA), responsiveness [standardized response means (SRM)], and patient preference were evaluated.
Results: Study sample [mean age = 54.0 years (sd = 6.7), 80.5% female] consisted of 40.5% who had been diagnosed with OA for more than 1 year, and 49.2% who had been diagnosed for more than 5 years. Presenteeism scores were generally in the low (disability) end in all scales. Only SPS-6 showed significant floor effects (17%). Four of five scales demonstrated high internal consistency (0.89 - 0.94) except for the SPS-6 (0.75). At work disability scores showed moderate-to-high correlations (0.59 - 0.78) with work constructs (*self-reported work productivity, intrusion of arthritis on work ability*, and *generic work role*) as well as logical and statistically significant (p= 0.05 *corr.*) gradients across workers hindered by arthritis at various levels (*very much, to a degree, not at all)*. Comparatively, the WIS-RA showed the strongest correlations to work constructs (0.74 - 0.77). Correlations between presenteeism scales were only moderate (0.46 - 0.71) suggesting different response patterns. The WALS (SRM = 0.88) and WIS-RA (SRM = 0.82) were most responsive to self-reported improvements in work ability after 12 months (SRM = 0.30 - 0.48 for other measures). The WALS (34.7%) was the most preferred measure by the participants, while the SPS-6 was least preferred (3.3%).
Conclusions: Despite initially developed for persons with rheumatoid arthritis, the WIS-RA stood out as a measure exhibiting the strongest psychometric properties, and therefore should be favored for evaluating mismatches between work demands and abilities of workers. The WALS should also be strongly considered as it similarly demonstrated strong measurement properties, and was the most preferred by respondents. Psychometric concerns and low patient preference suggest that the SPS may be least suitable among these five instruments.

286

ULTRASONOGRAPHIC FINDING IN KNEE OSTEOARTHRITIS. A NATION-WIDE STUDY IN SPANISH PATIENTS

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Purpose: To describe the ultrasonographic (US) findings in a Spanish cohort of patients with knee osteoarthritis (KOA). These US findings were compared with clinical and functional characteristics.
Methods: 433 patients: 69% women, 31% men, mean ± SD, 58.4 ± 13,4 years) with primary KOA according to the ACR criteria were included. The body mass index was greater than 27 in 70% of the patients. The patients were referred for the study by their general practitioner who previously had performed a clinical history and a physical examination. All patients filled-out the Womac OA questionnaire, the analogical visual scale and the SF12 questionnaire. All underwent a US examination (Philips U22, Seattle, USA) of both knees by 20 sonographers, following the EULAR guidelines, that included the presence of synovitis (defined by OMERACT) in the suprapatellar recess and parapatellar medial and lateral recesses; medial and lateral osteophytes; quadricipital and patellar enthesophytes; Baker's cyst, and meniscal extrusion (defined as a distance greater than 2 mm between the edge of the meniscus and the outer part of the tibia with the knee fully extended). Most of the US examiners had more than 10 years of experience in musculoskeletal US. Eleven sonographers with less than 10 years experience were trained in US for the study. The interobserver study performed after the training period revealed an average overall agreement of 90% for all of the parameters included in the study. Informed consent was obtained from all patients prior to the clinical and US examination.
Results: The mean ± SD number of pathological findings in patient was 7.93± 4.23.These findings were: quadricipital enthesophyte (64.29%); medial osteophytes (59.68%); lateral osteophytes (54.38%); meniscal extrusion (51.38%); and synovitis/effusion in anterior recess (50.23%). Functional score of the SF 12 questionnaire was worse in patients with lateral osteophytes (40.83 ± 6.90), synovitis in the suprapatellar recess (40.24 ± 7.10), synovitis in the medial parapatellar recess (40.29, ±8.4) and in the lateral parapatellar recess lateral (40.49 ±8.48) vs. those that did not have: lateral osteophytes(42.42±8.48, p=0.041), synovitis in the suprapatellar recess (42.88±8.05, p=0.0001), synovitis in the medial parapatellar recess(42.04±7.78, p=0.040) and synovitis in the lateral parapatellar recess (42.26±7.71, p=0.023). Pain score in WOMAC scale was worse in patients with medial osteophyte (8.97 ±4.27, p<0.0001), lateral osteophyte (9.09

±4.19, p<0.0001), synovitis in the suprapatellar recess (8.83 ±4.22, p=0.009), and medial parapatellar recesses (9.15 ±4.20, p=0.042) v.s those patients that did not have.
Stiffness score in WOMAC questionnaire was affected by the presence of lateral osteophyte (4.02 ±1.95, p=0.001) and the functional capability was modified because of the presence of lateral osteophyte (32.54 ±13.74, p<0.0001), medial osteophyte (32.17 ±14.4, p<0.0001) and synovitis in the suprapatellar recess (31.72 ±14.26, p=0.001).
Conclusions: -In our population, the most frequent US finding was quadricipital enthesophytes. Suprapatellar synovitis was found in more than half of the patients with symptomatic KOA. There was a relationship between the number of pathological US findings and pain (namely when walking and going up staired), stiffness and functional ability scores.
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287

AFRICAN-AMERICAN/WHITE AND GENDER DIFFERENCES IN ARTHRITIS IMPAIRMENT: A POPULATION-BASED STUDY

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Purpose: Studies suggest that some minority groups, especially African-Americans with osteoarthritis, may be at risk for higher rates of pain and disability compared to Caucasian Americans. In addition, African-Americans are less likely to undergo arthroplasty compared to Caucasian Americans. Some studies show that female gender is associated with arthritis impairment. However, more research needs to be done to evaluate the role of age, gender, socioeconomic status, and other predictors of arthritis impairment among minorities and Caucasian Americans.
Methods: The findings from the population-based 1998 National Health Interview Survey (N=30,534 adults) were used. Descriptive and correlational procedures evaluated possible Black/White differences in arthritis impairment related to walking ¼ of a mile without special equipment.
Results: The null hypothesis was mostly rejected. African-American women with household incomes less than $20,000 who report that arthritis impairs their daily activities were more likely than Caucasian-American and African-American men with arthritis impairment in different income groups to be unable to walk ¼ of a mile without special equipment. For example, African-American women with household incomes less than $20,000 who report that arthritis impairs their daily activities were more likely than Caucasian-American and African-American men with arthritis impairment in different income groups to be unable to walk ¼ of a mile without special equipment, after adjusting for age (r=+0.213, N=340, p<0.000). Among Caucasian-American women with household incomes at or above $20,000, arthritis impairment also was positively correlated with being unable to walk ¼ of a mile without special equipment, after adjusting for age. However, this partial correlation was very low (r=+0.047, N=3,150, p<0.008).
Conclusions: These findings highlight the need to screen for and aggressively manage arthritis-related pain and disability among women, especially low-income African-American women.

288

MODELING BLOOD PRESSURE CHANGES ASSOCIATED WITH LUMIRACOXIB VS IBUPROFEN INTO LONG-TERM CARDIOVASCULAR AND CEREBROVASCULAR OUTCOMES AND COSTS

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Purpose: Hypertension is a common comorbidity among patients with osteoarthritis (OA). Traditional NSAIDs used to treat OA are known to increase blood pressure or to attenuate the effect of antihypertensive medications. The goal of this analysis was to model the 24 hr systolic ambulatory blood pressure (SABP) profile into long-term cardiovascular outcomes of a hypothetical cohort of 100,000 controlled hypertensive OA patients treated with lumiracoxib 100 mg versus ibuprofen 600 mg tid.
Methods: SABP profile was based on results from a 4-week clinical trial which showed significant changes associated with ibuprofen (+ 2.2 mmHg) vs lumiracoxib (-2.7 mmHg). Framingham risk equations were used in an interactive Excel-based model to extrapolate these results over a 10-year period and predict the relationship between SABP changes and the development of coronary heart disease (CHD), cerebrovascular disease (CVD) and congestive heart failure (CHF). Inputs in the model included common risk factors (age, gender, cardiovascular disease, diabetes, left ventricular hypertrophy, total/HDL ratio, smoking, and atrial fibrillation), change in 24 hr SABP, and acute and post-event costs for each of the outcomes of interest obtained from published sources. Modeled outcomes included the number of events and the associated costs of managing these events in ibuprofen and lumiracoxib-treated hypertensive OA patients.
Results: Table shows outcomes and costs in a cohort of 100,000 patients with the following characteristics: 64 yrs; female, baseline SABP 127mmHg; total/HDL ratio 4.7; and negative history of smoking, cardiovascular disease, left ventricular hypertrophy, atrial fibrillation, or diabetes.

	Ibuprofen	Lumiracoxib	Events Avoided
# MI events	8,761	8,201	560
# Stroke events	5,997	5,244	753
New CHF diagnoses	1,682	1,659	23
Total CV-related deaths	4,759	4,332	427
			Costs Avoided
MI Costs	$141,374,086	$132,215,429	$9,158,656
Stroke Costs	$242,578,501	$212,080,895	$30,497,606
CHF Costs	$59,005,390	$58,152,872	$30,497,606
Total Costs	442,957,977	$402,449,196	$40,508,780

Conclusions: Modeling of differential treatment effect on clinical trial blood pressure data showed that treatment of OA with lumiracoxib vs a traditional NSAID in a hypertensive population results in significant cardiovascular events avoided and reduced costs. Future work should address how clinic blood pressure measures affect results relative to the ambulatory measures used here.