For the coxarthrosis stage, we employed the classification by the American Academy of Orthopaedic Surgeons (AAOS) for the treatment of hip pain and osteoarthritis (OA). The AAOS classification includes five stages: (a) Roentgenographic stages of coxarthrosis. Disagreement was most apparent among the three groups of almost normal, prearthrosis and the initial stage. Moreover, several observers classified some hips as “almost normal or prearthrosis”. Considering the power of statistical analysis, we dealt with these two categories as one unit. Consequently, the kappa statistics was calculated as 0.448 and the strength of agreement was evaluated as Moderate. (b) Roentgenographic index of acetabular dysplasia. The value of coefficient of variation was smallest in the acetabular angle and increased in the following order: the AHQ, the acetabular roof obliquity, the CE angle, and the AAQ.

Results:
Study 1: (a) Roentgenographic stages of coxarthrosis. Disagreement was most apparent among the three groups of almost normal, prearthrosis and the initial stage. Moreover, several observers classified some hips as “almost normal or prearthrosis”. Considering the power of statistical analysis, we dealt with these two categories as one unit. Consequently, the kappa statistics was calculated as 0.448 and the strength of agreement was evaluated as Moderate. (b) Roentgenographic index of acetabular dysplasia. The value of coefficient of variation was smallest in the acetabular angle and increased in the following order: the AHQ, the acetabular roof obliquity, the CE angle, and the AAQ.

Study 2: The value of the kappa statistics was calculated as 0.600.

Conclusions: For the multi-center survey, clear description of the stages of coxarthrosis and selection of appropriate indexes may be helpful for collecting dependable results.

336 USING ESCAPE ANALGESIA DURING AN OSTEOARTHRITIS TRIAL (OA): CORRELATION WITH PAIN SCORES & ITS RELATION TO TRIAL RESULTS

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Purpose: Trials in OA examining pain outcomes often allow use of escape analgesia, which may minimize treatment (Tx) differences. Little is known about the pattern of escape analgesia use & its relation to pain in such trials. Using data from a null randomized cross-over trial of shoe inserts (SIS) for pain Tx of OA where escape analgesia was permitted & documented by daily diaries, we describe the pattern of escape analgesic use, its correlation with pain scores & if there was a difference in escape analgesic usage between Tx & placebo. Previous studies have not had detailed information that would permit comprehensive evaluation of the quantity of analgesia used & its relation to pain.

Methods: During the SIS trial, subjects recorded daily pain medication use via a diary which was collected at each study visit. All of the 90 randomized subjects who had at least 1 visit (maximum 4 visits) with both a completed diary & WOMAC pain subscale (n = 77) were used in the analysis. Analgesics, NSAIDS & COX-2 meds used 7-days prior to study visit (to reflect the same recalled time period of the WOMAC pain subscale) were transformed to acetaminophen equivalencies (AEq). AEq transformation was based on methods used by Allen (JAGS 51:534 2003). We evaluated the correlation between pain score & AEq use with a Spearman rank test & tested the difference between Tx & placebo in escape analgesia with a Wilcoxon paired signed rank test.

Table 1: WOMAC Pain & medication usage (n = 77 Subjects)

<table>
<thead>
<tr>
<th>WOMAC pain</th>
<th>Treatment visits</th>
<th>Placebo visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>past 7 days</td>
<td>% visits</td>
<td># visits</td>
</tr>
<tr>
<td>&lt;100</td>
<td>52%</td>
<td>32</td>
</tr>
<tr>
<td>100-199</td>
<td>54%</td>
<td>45</td>
</tr>
<tr>
<td>200-299</td>
<td>65%</td>
<td>34</td>
</tr>
<tr>
<td>300-399</td>
<td>77%</td>
<td>30</td>
</tr>
<tr>
<td>400-489</td>
<td>77%</td>
<td>67</td>
</tr>
<tr>
<td>Total</td>
<td>62%</td>
<td>147</td>
</tr>
</tbody>
</table>

Results: Table 1 highlights AEq use stratified by WOMAC Pain score & visit type. The direct correlation between WOMAC pain & AEq for the Tx & placebo visits was 0.25 (p = 0.03) & 0.26 (p = 0.03) respectively. Wilcoxon paired signed rank test indicated there was no significant difference in analgesic use between Tx & placebo (p = 0.59). Since Pain score & analgesic use were not inversely related, analgesics did not reverse any effect of treatment.

Conclusions: Pain score & analgesic use were modestly correlated, but analgesic use did not differ between Tx & placebo therefore did not affect the directionality or magnitude of the Tx effect.

337 FACTORS THAT MEDIATE THE RELATIONSHIP BETWEEN RACE AND PATIENT PREFERENCE FOR ELECTIVE JOINT REPLACEMENT

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Purpose: There are marked racial/ethnic differences in the utilization of total joint replacement (TJR) for osteoarthritis (OA). Racial differences in patient preference may be an explanation for the observed variation in utilization rates, but the factors that mediate the relationship between patient race and preference for joint replacement (JRF) have been understudied. Therefore, we sampled primary care patients who were clinical candidates for JR to examine potential mediators of the relationship between race and patient preference for TJR.

Methods: The sample consisted of 894 veterans (451 African-American [AA], 443 white) 50 years of age or older who receive primary care in two VA Medical Centers and had moderate to severe hip or knee OA as indicated by WOMAC score >38. We used the previously validated Hospital for Special Surgery Joint Replacement Expectations Surveys (JRES) to assess patients’ expectations for pain relief, functional improvement, and psychological well-being after surgery and a previously published willingness question to assess patient preference. Structured interviews were used to collect information on demographic, psychosocial (health literacy level, social support, mental health well-being, pain coping, religiosity, and risk preference), and patient knowledge regarding JR. We a priori identified variables as covariates (age, income, educational level, WOMAC score and SF-12 mental status subscale) and others as potential mediators (knowledge, JRES, social support and pain coping). We performed bivariate analyses to examine the relationships between race, patient preference, and potential mediators. Those factors associated with both race and preference were analyzed using multi-ple logistic regression modeling preference as a function of race and the potential mediators, adjusted for patient covariates. Non-significant mediator variables (P > 0.05) were removed using backwards stepwise-selection. Comparison of the adjusted race effect in this model to the unadjusted race effects without the mediator variables were made to assess whether these variables mediated the relationship between race and patient preference. All models were adjusted for site of study.

Results: In this sample, AA patients were slightly younger (P < 0.001) and reported lower educational level (P < 0.001); lower household income (P < 0.001); and lower literacy level (P < 0.001). White patients reported higher preference for JR (72% vs 60%, P < 0.001); were more likely to have received a referral for surgery (32% vs 26%, P = 0.05); and less likely to have tried prayer to treat their chronic pain (56% vs 73%, P < 0.001). Compared to patients with high preference for surgery, those with low preference had lower scores on social support scale (P < 0.001); pain coping measure (P = 0.04); and knee and hip JRES (P < 0.001 for both). They also reported less understanding of JR and expected longer hospital stay, more pain and difficulty walking after JR surgery, were less likely to report having had a discussion with a doctor about surgery, and less likely to have received a recommendation for surgery (P < 0.005 for all). AA had a rate unadjusted OR (OR) for willingness to consider surgery (preference) was 0.69 (95% CI = 0.51–0.93) and was unchanged after adjusting for patient covariates. However, after the addition of the statistically significant potential mediators (patient knowledge, JRES and social support), the OR became 0.88 and was no longer statistically significant (95% CI = 0.62–1.24).

Conclusions: In this sample, the relationship between patient race and preference for JR is mediated by patient knowledge and expectations regarding surgery and social support.

338 DIABETES AND SITE-SPECIFIC OSTEOARTHRITIS

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Purpose: Diabetes can affect the musculoskeletal system in a variety of ways. Hormone disturbances have been associated with early cartilage