was 69 years (range 33-92) and there were 815 males (51%). The mean baseline age completed PROMS 1 year after arthroplasty with weight and BMI. The mean age of surgery. Results: Of the 1790 subjects who formed the study group, 1600 patients went primary TKA between July 2015 and December 2020 and consented to outcomes (PROMS) and satisfaction with surgery. Methods: Participants underwent primary TKA between July 2015 and December 2020 and consented to participation in a research database with baseline PROMS, including weight, BMI, Oxford Knee or Hip Score, and EQ5D. Participants repeated PROMS at 12 months after surgery with additional questions regarding satisfaction with surgery. Results: Of the 1790 subjects who formed the study group, 1600 patients completed PROMS 1 year after arthroplasty with weight and BMI. The mean age was 69 years (range 33-92) and there were 815 males (51%). The mean baseline BMI was 29.9 (SD 5.2), 16% were classified as normal weight, 39% were classified as overweight and 45% were classified as obese. In the obese subjects the mean weight loss after TKA over 12 months was 0.9kg (SD 4), and weight loss of 5kg or more over 12 months. Obese patients experienced equivalent improvements in patient reported outcomes after arthroplasty and rates of satisfaction with surgery to the non-obese, but should not consider weight loss an expected outcome of TKA. Data: Introduction: Obesity is a common in individuals undergoing arthroplasty, and the potential for weight loss with improved mobility may be expected by some. The aim of this study was to determine the proportion that achieved weight loss after knee arthroplasty, and 2. examine the effect of obesity on patient reported outcomes (PROMS) and satisfaction with surgery. Methods: Participants underwent primary TKA between July 2015 and December 2020 and consented to participation in a research database with baseline PROMS, including weight, BMI, Oxford Knee or Hip Score, and EQ5D. Participants repeated PROMS at 12 months after surgery with additional questions regarding satisfaction with surgery. Results: Of the 1790 subjects who formed the study group, 1600 patients completed PROMS 1 year after arthroplasty with weight and BMI. The mean age was 69 years (range 33-92) and there were 815 males (51%). The mean baseline BMI was 29.9 (SD 5.2), 16% were classified as normal weight, 39% were classified as overweight and 45% were classified as obese. In the obese subjects the mean weight loss after TKA over 12 months was 0.9kg (SD 4), and weight loss of 5kg or more was seen in 12%. The mean KOOS JR scores were significantly lower in the obese compared to the non-obese before TKA (47 vs 51, p=0.001), and after TKA (78 vs 81, p=0.001), but the change in score was equivalent in both groups (31 vs 31, p=0.404). Both the obese and the non obese reported high rates of satisfaction with surgery (90% vs 92%, p=0.179), and would undergo the same surgery again (89% vs 87%, p=0.211). Conclusions: Preoperative obesity was observed in 45% of TKA patients. In the obese only 1 in 8 subjects lost 5kg or more over 12 months. Obese patients experienced equivalent improvements in patient reported outcomes after arthroplasty and rates of satisfaction with surgery to the non-obese, but should not consider weight loss an expected outcome of TKA.

Category: Knee - Arthroplasty

How Does The Use of a Gap Balancing vs Measured Resection Technique Affect Component Positioning and Limb Alignment In Robotic Total Knee Arthroplasty? A Comparison of the Mako and Omnibot Systems

Abstract # 22171
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Summary: A retrospective cohort study comparing robotic TKA using either a quantified gap balancing technique (MAKO) or a measured resection technique (OMNibot) which shows that while the two techniques result in different implant positions and rates of recuts, both systems achieve equal sagittal deformity correction with good patient outcomes at short term follow-up.

Data: Introduction: Un cemented total knee arthroplasty (TKA) has become a viable option in recent years. While institutions may monitor their implant usage, the evolution of the use of cemented technology has not been well describe on a national level in the United States. Therefore, we sought to characterize the use of cemented and uncemented TKA across the United States. Methods: We searched IBM MarketScan database for patients who underwent primary TKA using a cemented or uncemented implant based on the International Classification of Diseases, Tenth Revision Procedure Coding System between 2018 and 2020. Records were reviewed for age, sex, date of TKA, laterality, region, length of stay, type of insurance, discharge, and net payments to hospitals and physicians. Chi-square and independent-samples t-test were used to compare groups. Multiple logistic regression was performed to establish risk factors for cemented or uncemented TKA. Significance was set at p<0.05. Results: We identified a total of 62981 cemented and 5460 uncemented TKA. The rate of uncemented TKA increased from 6.46 percent (%) in 2018 to 10.78% in 2020 (p<0.001). Females were more likely to be implanted with a cemented TKA (59.6% vs 40.4%),

Category: Knee - Arthroplasty

National Trends of Cemented and Uncemented Total Knee Arthroplasty: 2018-2020

Abstract # 22876
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Summary: There are increasing rates of uncemented total knee arthroplasty, and younger patients, male patients, patients operated on more recently, patients with private insurance, and patients from certain regions in the United States are more likely to be implanted with an uncemented total knee arthroplasty.
Central Sensitization and Neuropathic Pain Synergistically Affect Inferior Patients Reported Outcomes Following Total Knee Arthroplasty

Abstract ID# 22980
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Summary: Central Sensitization and Neuropathic Pain symptom were factors related to higher postoperative pain levels and inferior PROMs in patients undergoing primary TKA

Data: Introduction: There are still insufficient studies on the relationship between central sensitization (CS) and neuropathic pain (NP), and the effects of CS and NP on the patient-reported outcome measures (PROMs) of patients who underwent total knee arthroplasty (TKA). The purpose of this study was to investigate the relationship between CS and NP and whether CS and NP were associated with PROM in patients undergoing TKA. Methods: A total of 312 patients who underwent primary TKA for end stage knee OA were enrolled. CS was defined as a patient with a score of 40 or higher using central sensitization inventory (CSI). NP was defined as a patient with a score of 13 or more using pain detect questionnaire (PDQ). PROMs were also evaluated based on the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) score preoperatively and at postoperative 2 years. The patients were divided into 4 groups, group 1 with CS and NP positive, group 2 with only CS positive, group 3 with only NP positive, and group 4 with CS and NP negative. Results: There were 90 patients (28.5%) with both CS and NP positive, 33 patients (10.4%) with only CS positive, and 83 patients (26.3%) with only NP positive and 110 patients (34.8%) with CS and NP negative. All WOMAC subscores showed significant differences between the 4 groups both before and after surgery (all p < 0.05). As a result of post hoc analysis before surgery, group 1 showed significantly inferior WOMAC pain, function, and total score compared to groups 2, 3, and 4 (all p < 0.05). Groups 2 and 3 showed worse postoperative results in WOMAC subscores compared to group 4 (all p < 0.05). These results remained the same at 2 years after surgery. Conclusion: CS and NP symptom were factors related to higher postoperative pain levels and inferior PROMs in patients undergoing primary TKA. Among them, those with both CS and NP positive showed an inferior postoperative PROM compared to only CS or NP positive, and both CS and NP negative.

Category: Knee - Arthroplasty

"Is It Gender Or Surgical Technique?" Prospective Evaluation of Femoral Component Sizing Differences

Abstract ID# 22360
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Summary: The next generation knee system has both less overhang and underhang with its standard size, more likely due to surgical technique improvements, rather than component sizing modifications.

Data: Introduction: In spite of gender marketing, little evidence supports that gender-based changes to the femoral component lead to better sizing or clinical outcomes. The purpose of this study is to prospectively evaluate whether a single company's gender-based femoral component or their updated version with a modified surgical technique leads to better femoral component fit. Methods: Between 2009 and 2018, 2508 consecutive primary total knee replacements in females were performed by a single surgeon. One knee system had gender-based femoral components available. The second knee system, the manufacturer's updated version, had standard and narrow sizes, more likely due to surgical technique improvements, rather than component sizing modifications.

Discussion: While a gender-specific component may provide more sizing...