

Introduction

Osteoarthritis is the most common joint disease and the commonest indication for total knee and hip replacement. In the most severe and disabling cases conventional measures may not be sufficient to control pain. **Objective:** to determine the clinical efficacy and safety of interventional ultrasound guided intrarticular pulsed radiofrequency in patients with knee osteoarthritis.

Keywords (MeSH): Osteoarthritis, knee; pain, pain management, pulsed radiofrequency treatment.

Methods and materials

Prospective longitudinal observational study in 11 patients who underwent intrarticular pulsed radiofrequency of the knee. Follow up 20 weeks.

Data were analyzed with IBM-SPSS Statistics 18 ®. We conducted descriptive analysis, Shapiro-Wilk hypothesis testing, matched analysis, Wilcoxon test and bivariate analysis with a confidence level of 95% and statistical significance of less than 5%.

Results

Over 80% of patients in the first and fourth week after the procedure had pain intensity on the VAS ≤ 4 . Between weeks eight and twenty, around 50% still had a VAS ≤ 4 . The difference between the medians of the VAS initial and follow-up was statistically significant ($p < 0.001$). A statistically significant improvement in Oxford scores ($p < 0.0001$) was obtained, which meant going from a surgery (arthroplasty) to medical treatment in the affected knee. There were no complications.

Table 1. Baseline Characteristics of the patients

Variable	n = 11
Age - yr (\pm SD)	63 ($\pm 11,2$)
Male sex - no.(%)	5 (45,5%)
Obesity (%)	27,20%
Body mass index (\pm SD)	28,5 ($\pm 4,0$)
Planned joint replacement (%)	73%
OKPS* (median)	17
Severe pain (VAS** >7) (%)	100%

*OKPS: Oxford Knee Pain Score

**VAS: Visual Analog Scale for Pain

Conclusions

Intrarticular pulsed radiofrequency in patients evaluated with knee osteoarthritis was effective and safe, with functional improvement up twenty weeks.

Figure 1. Visual analog scale for pain in the observation period

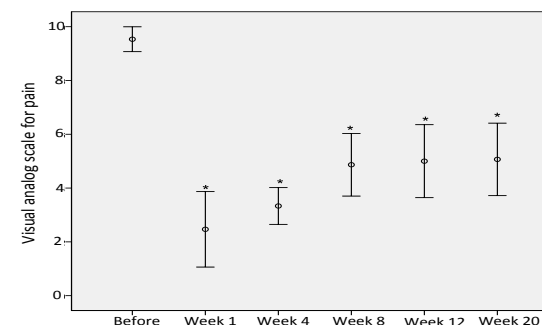
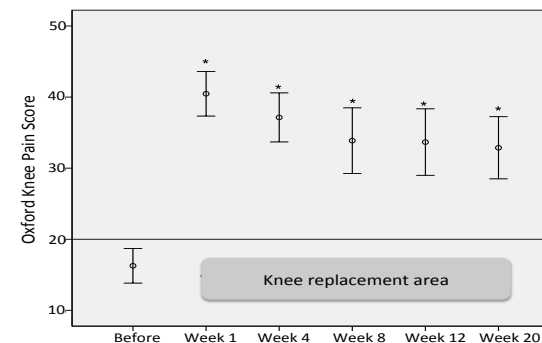


Figure 2. Oxford Knee Pain Score in the observation period



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