

No. 98**Mid-term analysis of the survival of uncemented total knee arthroplasties with modular tibial components made of porous tantalum**

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Introduction

This retrospective study aimed to compare the survival rates of uncemented total knee arthroplasties (TKA) with porous tantalum posterior-stabilized (PS) modular tibial components to those with cemented PS tibial components from the same knee implant system by the same manufacturer, using revision for aseptic loosening as the endpoint.

Materials and Methods

From January 2017 to December 2021, 1,202 TKAs were performed at a single tertiary institution by five experienced orthopaedic surgeons. The majority of patients underwent TKA for primary osteoarthritis (OA). Of the total cohort, 826 cases (68.7%) involved cemented TKAs, while 376 cases (31.3%) involved uncemented TKAs. The distribution of body mass index (BMI) was similar between both groups (mean BMI: 30.9 kg/m², $p > 0.05$). However, patients treated with uncemented TKAs were younger (mean age 64.4 years, 95% CI 63.6-65.2) than those with cemented TKAs (mean age 70.6 years, 95% CI 70.1-71.2) and were predominantly male (59%), while the cemented group had a higher proportion of female patients (74.2%). The cohort was followed until December 31, 2023.

Results

During the follow-up period, 113 patients died from causes unrelated to their TKA. The 7-year survival rate for all causes was lower in the uncemented TKA group (98.0%, 95% CI 96.4-99.6) compared to the cemented TKA group (99.7%, 95% CI 99.3-100). Revisions for aseptic loosening were exclusively due to tibial component loosening, with 2 revisions in the cemented group compared to 6 in the uncemented group ($p < 0.05$). Notably, 2 of the 6 uncemented TKAs revised for tibial component loosening also exhibited fractured tibial baseplates.

Discussion

Uncemented porous tantalum PS modular TKAs demonstrated inferior performance compared to their cemented counterparts. These findings are clinically significant, leading our institution to discontinue the use of this type of uncemented implant.

Notes

No. 18**Gender, age, and Oxford Hip Score as determinants for Visual Analogue Scale: The case of the National Arthroplasty Registry of Slovenia**

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Introduction

Patients' opinions and outcomes, before and after surgery, are important measures of the quality of the hospital's work. Oxford Hip Score (OHS) is a widely used Patient-Reported Outcome Measure (PROM) for primary hip arthroplasties. Visual Analogue Scale (VAS) is commonly used for measuring the patient's actual health perception.

Materials and Methods

In The National Arthroplasty Registry of Slovenia (RES) data about PROMs are collected. For this paper, we have used data for primary hip arthroplasties performed in 2023 in the Republic of Slovenia. 1181 valid answers were collected. The main research hypothesis states that there are differences in gender, age, each item of OHS and VAS. Chi-squared Automatic Interaction Detection (CHAID) analysis was used to test the research hypothesis.

Results

Results show there are statistically significant differences in gender, age, and different items of OHS, and VAS for preoperative, and 6 and 12 months after surgery. For preoperative VAS, the highest scores (M=78,06) were reported by the interviewed patients aged 59 years and less, who reported some days or less sudden pain, and moderate or little difficulty while household shopping. 6 months after surgery, the highest VAS (M=84,05) was reported by the interviewed patients that had no pain in their hip, could easily climb a flight of stairs, and could easily do household shopping on their own. 12 months after surgery, the highest VAS (M=84,71) was reported by interviewed patients that had no difficulty doing household shopping.

Discussion

From the results, it can be seen that being able to do household shopping on their own determines the highest score on the VAS scale. The interviewed patients report it as an important factor that influences the overall health perception. Those who can easily do household shopping on their own, report better overall health, in all 3 periods.

Keywords: Patient Reported Outcome Measures (PROMs), National Arthroplasty Registry of Slovenia (RES), primary hip arthroplasty, Oxford Hip Score (OHS), Visual Analogue Scale (VAS)

Notes

No. 19**Gender, age, and Oxford Knee Score as Determinants for Visual Analogue Scale: The case of the National Arthroplasty Registry of Slovenia**

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Introduction

Patients' opinions and outcomes, before and after surgery, are important measures of the quality of the hospital's work. Oxford Knee Score (OKS) is a widely used Patient-Reported Outcome Measure (PROM) for primary knee arthroplasties. Visual Analogue Scale (VAS) is commonly used for measuring the patient's actual health perception.

Materials and Methods

In The National Arthroplasty Registry of Slovenia (RES) data about PROMs are collected. For this paper, we have used data for primary knee arthroplasties performed in 2023 in the Republic of Slovenia. 2778 valid answers were collected. The main research hypothesis states that there are differences in gender, age, and each item of OKS and VAS. Chi-squared Automatic Interaction Detection (CHAID) analysis was used to test the research hypothesis.

Results

Results show there are statistically significant differences in gender, age, and different items of OKS, and VAS. For preoperative VAS, the highest scores (M=78,39) were reported by the interviewed patients who could easily do the household shopping on their own or this activity was impossible for them and had very little trouble or no trouble at all getting in and out of a car. 6 months after surgery, the highest VAS (M=88,8) was reported by the interviewed females who had no interferences in their usual work because of the knee, could easily or with little difficulty kneel down and get up afterwards, and could easily walk a flight of stairs. 12 months after surgery, the highest VAS (M=86,32) was reported by interviewed males who could easily walk down one flight of stairs.

Discussion

From the results, it can be seen that patients who can easily walk down one flight of stairs or could easily get in and out of the car, report better overall health.

Keywords: Patient Reported Outcome Measures (PROMs), National Arthroplasty Registry of Slovenia (RES), primary knee arthroplasty, Oxford Knee Score (OKS), Visual Analogue Scale (VAS)

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No. 20

Gender, age, type of arthroplasty, and EQ-5D-5L as determinants for Visual Analogue Scale: The case of the National Arthroplasty Registry of Slovenia

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Introduction

Patients' opinions and outcomes, before and after surgery, are important measures of the quality of the hospital's work. EQ-5D-5L and Visual Analogue Scale (VAS) are widely used Patient-Reported Outcome Measures (PROMs) to assess the patient's general health perception.

Materials and Methods

In The National Arthroplasty Registry of Slovenia (RES) data about PROMs are collected. For this paper, we have used data for primary knee and hip arthroplasties performed in 2023 in the Republic of Slovenia. 5781 valid answers were collected. The main research hypothesis states that there are differences in gender, age, type of arthroplasty, and each item of EQ-5D-5L, and VAS. Chi-squared Automatic Interaction Detection (CHAID) analysis was used to test the research hypothesis.

Results

Results show there are statistically significant differences in gender, age, type of arthroplasty, and different items of EQ-5D-5L, and VAS. For preoperative VAS, the highest score (M = 75,49) was achieved by the interviewed patients with no or slight pain or discomfort and had no problems washing or drying themselves. The highest VAS score (M = 87,88) 6 months after surgery was achieved by those who were younger than 76 years, had no problems in walking about, had no pain or discomfort, and had no problems doing their usual activities. The highest VAS score (M = 87,1) 12 months after surgery was reported by those who had no problems walking about and had no problems doing their usual activities.

Discussion

From the results, it can be seen that patients who can perform their usual activities and have no pain, report better overall health. As such, we can conclude that patients undergoing hip or knee arthroplasty perceive their health as better if they have no pain and can live their usual life.

Keywords: Patient Reported Outcome Measures (PROMs), National Arthroplasty Registry of Slovenia (RES), primary knee arthroplasty, primary hip arthroplasty, EQ-5D-5L, Visual Analogue Scale (VAS)

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