



EPIDEMIOLOGICAL DIFFERENCES BETWEEN POSTTRAUMATIC AND PRIMARY OSTEOARTHRITIS IN A COHORT STUDY.

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BACKGROUND

Osteoarthritis (OA) is the most common degenerative joint disorder that affects large joints, principally knees and hips in elderly. OA is associated with great pain, disability and morbidity and it has been classified principally as primary or secondary including posttraumatic-OA (PTOA). We aim to quantify the prevalence and risk factors for primary and secondary hip and knee OA in patients with severe symptoms requiring total joint arthroplasty (TJA).

MATERIALS AND METHODS

This is a prospective cohort study. Medical records and interviews were collected from 720 patients that received or were eligible for TJA. Collected data included demographic characteristics, anamnesis, diagnoses and comorbidities. Diagnostic criteria of primary and secondary OA, were based on patient history, examination, and radiographs. Questionnaires included: OA-family history, past occupation, comorbidities, OA-symptoms onset and number of joints affected with pain. Patients with TJA due to other causes (n=39) or rheumatoid arthritis (55) were excluded. We used logistic regression (odds ratios (OR), 95% confidence intervals (CI)) and ANOVA. All analyses were adjusted for gender, age and Body Mass Index (BMI).

RESULTS

A total of 626 cases of hip or knee OA were identified, including 532 cases of primary-OA (63.5% females) and 94 cases of secondary-OA (41.5% females). Most cases of secondary OA were PTOA cases (87%). Compared with patients with primary-OA, most patients with PTOA were males (OR=2.46, CI:1.57-3.84, $P<0.001$), in average, 8 years younger ($P<0.001$) with less joints affected by pain ($P=0.001$) and similar BMI than cases with primary OA ($P=0.26$). In males, knee was more affected by PTOA than hip (OR=2.6, CI: 1.21-5.43; $P=0.014$). In females, there was no difference, being joints affected ($P=0.52$). The age of OA-symptoms onset was around 50.4 years for PTOA group and 53.1 for primary OA ($P=0.016$). Family history of OA was more associated with primary OA than with PTOA (OR= 2.12, CI= 1.15-3.91, $P= 0.017$). Most frequent past occupations for PTOA cases were: desk-jobs (39%) and fabric jobs for primary-OA (21%). Finally, regarding comorbidities, diabetes was borderline significantly more prevalent in subjects with primary Knee-OA than knee-PTOA (31% vs. 17%, $P=0.06$ and $P=0.076$ after age, gender and BMI adjustment).

CONCLUSION

PTOA represents a significant part of OA-cases requiring arthroplasty. It is more frequent in younger males and knee is the joint more affected. PTOA might be considered a health and economical burden. Identifying risk factors for PTOA might help to develop strategies to delay or prevent PTOA.