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FRI0543 HEALTH RESOURCE USE AND COST-OF-ILLNESS OF SYMPTOMATIC KNEE AND/OR HIP OSTEOARTHRITIS : DATA FROM KHOALA COHORT

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Background: Hip and knee Osteoarthritis are a major public health problem. Data on the economic impact are scarce.

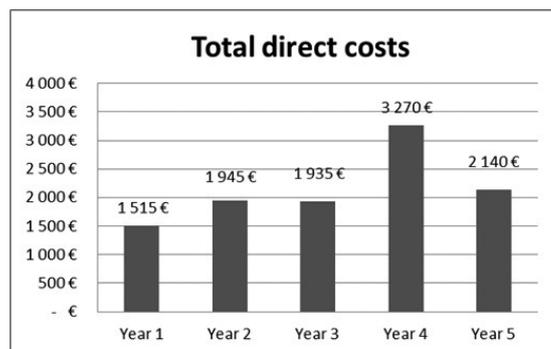
Objectives: The purpose of our study was to estimate the annual direct costs of patients followed for hip and/or knee osteoarthritis from the KHOALA cohort.

Methods: The KHOALA cohort is a French population-based multicenter cohort of 878 patients with symptomatic knee and/or hip OA, aged between 40 and 75 years old recruited between 2007 and 2009. Direct costs were collected annually for 5 years. Costs were annualised and expressed in euros per patient.

Results: Over the 5 years, the average total direct costs were € 2575 (sd 8085) per patient per year and median € 1015 (IQR 430–2500) (figure 1).

Drugs represented the main health expenditure item (>50% of total costs). However, the proportion attributable to osteoarthritis drugs accounted for less than 5% of total costs. The second item of expenditure was hospitalizations (hip and/or knee arthroplasty represents 7% of total average costs). Medical consultations were the third item of health expenditure (2.5% to 4% of total average costs). Physiotherapy represented 1% to 2% of total average costs.

Costs increased with older age, female sex, retirement, a high BMI, a high Charlson index and poor health status.



Abstract FRI0543 – Figure 1. Average annual total direct costs over 5 years per patient

Conclusions: These data are important results to describe the cost of care consumption of a sample of patients with symptomatic osteoarthritis of the hip and/or knee recruited to the general population in France. However, the specific cost attributable to osteoarthritis needs to be studied.

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URINARY 6-SULFATOXYMELATONIN EXCRETION AND GALECTIN-3 PLASMA LEVEL IN PATIENTS WITH OSTEOARTHRITIS

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Background: Melatonin and galectin-3 are considered as factors in the development of immune-inflammatory and destructive changes in joints.^{1–5} Melatonin has chondrogenic and antinociceptive properties,^{2, 4} while galectin-3 plays an important role in cell-cell adhesion, macrophage activation, angiogenesis, and apoptosis.^{1, 3} The clinical and pathogenetic significance of melatonin and galectin-3 in osteoarthritis remains on the discussion.

Objectives: To study the excretion of 6-sulfatexymelatonin (metabolite of melatonin) and galectin-3 level in the blood and evaluate their association with the clinical manifestation and life quality in patients with OA.

Methods: Study involved 141 patients with OA of knee joints (76.6% women), aged 58.4±7.91 years, duration of the disease 10.5±6.50 years (M±SD). 47 (33.3%) patients had knee and hip OA, 38 (27%) patients had reactive synovitis. The control group was presented by 36 practically healthy subjects (72.2% female) aged 57.1±9.95 years (M±SD). 6-sulfatexymelatonin (6-SMT) in urine and galectin-3 in blood were determined by ELISA. The severity of pain, stiffness, and physical functioning of the joints were evaluated by the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC). Quality of life was evaluated by Short Form-36 (SF 36).

Results: It was established in patients with OA a decrease in 6-SMT excretion, (mean 25.3 vs 38.8 ng/mg creatinine in control, p<0.001). 6-SMT excretion correlated with age (r=–0.40; p<0.001) and was more significant in patients with knee +hip OA (mean 26.5 vs 23.0 ng/mg creatinine in patients with OA of the knee only, p<0.001). Lower levels of 6-SMT excretion associated with higher pain and with lower quality of life. Patients with OA had increased galectin-3 levels in the blood (mean 16.4 vs 10.1 ng/ml in the control, p<0.001). In patients with OA of knee and hip joints were estimated higher levels of galectin-3. Levels of galectin-3 were significantly higher in patients with synovitis (mean 21.5 vs. 13.8 ng/ml without synovitis, p<0.001). The increase of galectin-3 in the blood was associated with a marked increase of the total WOMAC index and with decrease of life quality. The level of galectin-3 directly correlated with age, disease duration (r=0.28, 0.23, p<0.01) and inversely correlated with 6-SMT excretion (r=–0.28; p<0.01).

Conclusions: Lower levels of melatonin and higher of galectin-3 were associated with higher WOMAC index and poorer quality of life in patients with OA. This association may reflect possible pathogenic role of melatonin and galectin-3 in OA.

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FRI0545

RISK FACTORS PREDICTING RADIOLOGICAL PROGRESSION OF KNEE OSTEOARTHRITIS

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Background: Currently a number of risk factors (RF) are considered to be responsible for radiological progression of knee osteoarthritis (OA), nevertheless key predictors of OA progression have not yet been established.

Objectives: To identify RF predicting radiological progression of knee joint osteoarthritis (OA) in a 5 year multicenter prospective study.

Methods: This study of RF predicting knee OA progression was the first with multicenter prospective design ever conducted in Russia. The study included 344 female patients 40–75 y.o with primary stage I-III knee OA (ACR criteria) from 6 centres. Radiological stage was identified by Kellgren J.- Lawrence J. grading