Work, sports, overweight and osteoarthrosis of the hip

Epidemiological studies

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Arthrosis of the hip is a degenerative articular disorder with changes in the cartilage and subchondral bone. Population surveys in Sweden has shown a prevalence of 3.1 % for persons 55 years and older. The aim of this thesis was to study if physical loads from occupation, sports, and overweight are contributing causes to the development of symptomatic arthrosis of the hip.

In the cohort study, men and women alive 1980, according to the census, who each had reported the same blue collar occupation in the 1960 and 1970 censuses were followed in the Hospital Discharge Register concerning hospital care because of arthrosis of the hip 1981 to 1983. Blue collar occupations were classified as giving high or low forces to the lower extremities. Persons employed in high exposure occupations had an elevated relative risk for hospitalization compared to persons in low exposure occupations. Farmers, construction workers, fire fighters and food processing workers were those with the highest relative risks.

In a case-control study, men, 50 to 70 years of age, from parts of Stockholm comprised the study population. All men from this study population who had had hip prosthesis surgery because of primary hip arthrosis and a random sample from the study population were interviewed about physical load in occupation, sports activities, and weight to the age of 49. Men with high exposures to load from occupation had a relative risk of 2.4 (1.5–4.0) to receive hip joint prosthesis compared to men with low exposures. The relative risk to have prosthesis surgery for those with high exposure to all sports combined was 4.5 (2.7–7.6). Men with high exposure to physical loads both from occupation and sports had the highest relative risks 8.5 (4.0–17.9) for developing symptomatic arthrosis of the hip.

The relative risks of developing arthrosis of the hip for overweight individuals were increased in all age groups with the highest value 2.5 (1.4–4.5), for those overweight at the age of 40.

In a case-control study, disability pensions because of arthrosis of the hip for men born 1915 to 1934 and living in Stockholm county were investigated. Information about occupation the last 20 years was collected. All occupations were classified into four different exposure classes. The relative risk was 12.4 (6.7–23.0) for those with high exposure compared with those with low exposure. When different occupations were compared, construction workers, metal workers, farmers, and forestry workers had elevated relative risks of disability pension due to arthrosis of the hip.

The studies in this thesis indicate that physical loads from different origins may be contributing causes to symptomatic arthrosis of the hip.