incidence and severity of the KOA. The study favors the biomechanical theory of axial loading and local factors being predominantly responsible for cartilage degeneration and onset of the disease. This study disproves the notion of the possibility that the person who were overweight gained weight after developing osteoarthritis because of their knee pain and sedentary level of activity.

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PREDICTABILITY OF INTERMITTENT HIP/KNEE OA PAIN

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3 Toronto Western Res. Inst., Toronto, ON, Canada

Purpose: In people with painful hip/knee osteoarthritis (OA), focus groups identified the predictability of the pain as a key determinant of the pain impact. This study evaluated the relationship between pain predictability and a new measure of hip/knee OA pain, the OARSI-OMERACT Intermittent and Constant Osteoarthritis Pain (ICOP) Measure, which evaluates ‘constant’ (5 items) and ‘intermittent’ (6 items) hip or knee pain. Item response options are on a 5-point scale from ‘not at all’ to ‘extremely’. Subscale and total scores are standardized to 0 to 100; higher scores indicate worse pain. We hypothesized that individuals with unpredictable OA pain would have higher (worse) ICOAP intermittent subscale scores than individuals with predictable pain.

Methods: In the context of a cohort study of hip and knee OA, participants completed the ICOAP and were asked to indicate how often their pain ‘comes and goes’ or ‘without warning’ (unpredictable pain) or ‘after a specific trigger’, e.g. an activity (predictable pain) (0, never, to 4, very often) for each symptomatic hip and knee. Analyses were performed by joint. The proportions with one or both of pain without warning and after a trigger were calculated (at least sometimes versus never/rarely).

Results: For the women that answered ‘yes’ to OA in 2007 (n=269), 179 were confirmed by radiological records but for 90 there was no evidence of OA. For the women that answered ‘no’ to OA (n=298) there was no radiological evidence of OA for 219 but for 79 women there was a radiological record indicating presence of OA. Of the 35 women who responded that they were unsure whether they had OA or not, 23 had radiological evidence of OA and 12 did not. Sensitivity was 69% and specificity 71%. Positive predictive value (PPV, the probability that a subject who self-reports having OA has OA, confirmed by radiological report) was 66% and negative predictive value (NPV, the probability that a subject who states that they do not have OA is free of OA) was 73%. For the subset of women who had also reported OA in 1998-2000, PPV was 78% and for the women who reported that they did not have OA in 1998-2000 the NPV was 83% (Table 1).

Table 1. Confirmation of OA that was self-reported at two time points

<table>
<thead>
<tr>
<th>n</th>
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<tr>
<td>No OA</td>
<td>52</td>
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<td>138</td>
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<td>Unsure</td>
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Based on the self-report of OA in 1998-2000, the OA and OA-free groups had been well-matched with identical mean height (160.3 cm), weight (70.2 kg) and BMI (27.3 kg/m²) and similar mean age (54.6 y OA, 55.4 y OA-free). Where the presence or absence of a radiological report confirmed the 2007 self-report (n=179 OA, n=219 OA-free), the women with OA were noted to be heavier in 1998-2000 compared to those without OA (mean [SD] 71.9 [12.5] kg and 69.0 [10.0] kg, respectively, p=0.020), and the weight difference was even more marked at their previous visit in 1990-93 (68.4 [11.9] kg, 64.6 [10.3] kg, P<0.001). Where the self-report did not agree with the radiologically confirmed OA (n =90, self-reported but not confirmed; n=77, confirmed but not self-reported) there was no difference in weight between the groups.

Conclusions: Reasons that could explain why women would report OA when they did not have OA include health professionals suggesting ‘wear and tear’ but without an x-ray diagnosis, or the volunteer misunderstanding the word ‘osteoarthritis’. Conversely, OA may be detected on an x-ray but the woman had not been made aware of this. Nevertheless, 66%-73% of self-reports were correct. The predictive value of self-reported OA appears to improve when the same answer is given on two separate occasions. The study highlights the link between body weight and OA, but whether the heavier weight in OA is due to limited physical activity because of painful joints or whether it is part-causal is unclear.

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VALIDATION OF SELF-REPORTED OSTEOARTHRITIS IN A POSTMENOPAUSAL POPULATION AND ITS ASSOCIATION WITH BODY WEIGHT

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Purpose: Osteoarthritis (OA) is not well-defined and it is uncertain whether self-reported OA gives a valid estimate of the disease. The validity may depend on the population being studied. The aim of this study was to validate self-reported OA in a postmenopausal population.

Methods: Questionnaires requesting information about OA were sent out in February 2007 to a subset of women (n=752) from the Aberdeen Prospective Osteoporosis Screening Study (APRESS). Half the women had self-reported osteoarthritis (OA) in 1998-2000 and were matched (according to weight and body mass index [BMI]) with women who had self-reported absence of OA. In total, 618 questionnaires (82%) were returned of which 602 were correctly completed. Of the remaining 16 questionnaires, 14 were returned blank, one was incorrectly completed and one was incomplete. OA was confirmed by radiological report for 602 women.

Results: For the women that answered ‘yes’ to OA in 2007 (n=269), 179 were confirmed by radiological records but for 90 there was no evidence of OA. For the women that answered ‘no’ to OA (n=298) there was no radiological evidence of OA for 219 but for 79 women there was a radiological record indicating presence of OA. Of the 35 women who responded that they were unsure whether they had OA or not, 23 had radiological evidence of OA and 12 did not. Sensitivity was 69% and specificity 71%. Positive predictive value (PPV, the probability that a subject who self-reports having OA has OA, confirmed by radiological report) was 66% and negative predictive value (NPV, the probability that a subject who states that they do not have OA is free of OA) was 73%. For the subset of women who had also reported OA in 1998-2000, PPV was 78% and for the women who reported that they did not have OA in 1998-2000 the NPV was 83% (Table 1).

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ANALYSIS OF PERI-ARTICULAR OSSIFICATION IN THE MAJOR JOINTS OF A SKELETAL POPULATION: EXTRACTION AND CHARACTERIZATION OF SEVERE-OSTEOPHYTE-FORMED-SKELETONS

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Purpose: The formation of peri-articular osteophytes is one of the most representative changes of joint degeneration. By analyzing the distribution of these minor degenerative and proliferative phenomena in general skeletal systems, much information on physiological and/or pathological ageing, and the outline of generalized osteoarthritis (OA) might be derived. However, few studies have epidemiologically analyzed these osteophytes in human skeletons. In this study, the peri-articular osteophytes that formed around major joint surfaces of the upper and the lower extremities were...