**Table 1** The demographic data of study participants



Values are means ± standard deviations of age, body mass index, and KOOS. In terms of symptomatic knees, values are represented by prevalence (percentage of the whole population). Differences among the 2 groups were compared by the Mann‒Whitney U test and chi-square test. A p-value indicates the significance of difference between participants with and without knee symptoms. KOOS: Knee injury and Outcome Score

**Table 2** The mean total score and prevalence of magnetic resonance imaging lesions of study participants

The values represent mean ± standard deviation of total score and prevalence (percentage of the whole population) of magnetic resonance imaging lesions of all participants, participants with early knee osteoarthritis (KOA), and those without KOA.

Differences among the 2 groups were compared by the Mann‒Whitney U test and chi-square test.

A p-value indicates the significance of differences between participants with and without early KOA.

**Table 3** Magnetic resonance imaging lesions related to the presence of early knee osteoarthritis

Logistic regression analysis was performed on knees with Kellgren‒Lawrence grade 0 or 1 in radiographs.

In non-adjusted model, dependent variables were the presence of early knee osteoarthritis (KOA); the independent variables were each magnetic resonance imaging lesion type.

In the adjusted model, dependent variables were the presence of early KOA; the independent variables were age, body mass index, bone marrow lesions, attrition, meniscal lesions, and synovitis.

**Table 4** The prevalence of each knee pains of study participants



The values represent the prevalence of each knee pains of all participants, participants with early knee osteoarthritis (KOA), and those without KOA.

Data are based on the number of participants (percentage of the whole population) for each knee pains.

Differences among the 2 groups were compared by chi-square test.

A p-value indicates the significance of difference between participants with and without early KOA.

**Table 5** The association between magnetic resonance imaging lesions and knee pains with certain activities



Logistic regression analysis was performed on knees with Kellgren‒Lawrence grade 0 or 1 in radiographs. Dependent variables were the presence of each knee pains; the independent variables were age, body mass index, and each magnetic resonance imaging lesion type.