

The 2011 Knee Society Score According to Age and Sex in the Japanese General Population

Kazuki Oishi, MD, JAPAN
Eiichi Tsuda, MD, JAPAN
Yuji Yamamoto, MD, JAPAN
Shugo Maeda, MD, JAPAN
Eiji Sasaki, MD, PhD, JAPAN
Daisuke Chiba, MD, JAPAN
Shigeyuki Nakaji, MD, JAPAN
Yasuyuki Ishibashi, MD, JAPAN

Department of Orthopaedic Surgery Hirosaki University Graduate School of Medicine
Hirosaki, Aomori, JAPAN

Summary:

In the Japanese general population, the KSS 2011 scores decreased with age, while there were no statistical differences by sex in all the subscales.

Abstract:

PURPOSE

In addition to physicians' clinical evaluation of knee osteoarthritis (KOA), it has been considered that a self-evaluation method is required. In 2012 the Knee Society announced a new scoring system (KSS 2011). The KSS 2011, a questionnaire that includes subjective and objective evaluation, has enabled a comprehensive patient assessment of the knee before and after surgery. The standard value is necessary for an evaluation before surgery, however it is possibly unknown in the Japanese population. This study aimed to examine the KSS 2011 scores according to age and sex in the Japanese general population.

METHODS

One thousand and forty-five volunteers participated in the 2013 Iwaki Health Promotion Project (405 males, 640 females, mean age 54.4 years). It is an annual program that has been performed with the general population living in the Iwaki area of Hirosaki city located in western Aomori prefecture, Japan since 2005. KOA was determined by a Kellgren-Lawrence grade of 2 or more as seen on weight bearing anterior-posterior radiographs of both knees. The KSS 2011 was derived through self-administered questionnaires. The subscales for symptoms, patient satisfaction, and functional activities were calculated. The age-specific scores for up to 49 years, 50, 60s and over 70 years) of each subscale were calculated and compared by using analysis of variance. On using the Mann-Whitney U test for comparisons based on age and sex the risk factor was <5%.

RESULTS

One hundred and twelve (29%) males, and 314 (50%) females were diagnosed with KOA. The average values of each subscale (male / female) were: symptoms (23.0 ± 3.6 / 22.8 ± 4.0), patient satisfaction (32.0 ± 8.9 / 31.3 ± 8.9), and functional activities (81.2 ± 14.7 / 81.6 ± 14.8). All scores decreased with age. Additionally, none of subscales showed any difference between males and females of the same age. The knee function score that was included in the functional activities was low in both sexes. In females, functional activities reduced for the first time at over 70 years ($p < 0.01$), but symptoms reduced significantly from age 50s ($p = 0.01$).

CONCLUSION

In the Japanese general population, the KSS 2011 scores decreased with age, while there were no statistical differences by sex in all the subscales. In females, decline in satisfaction and appearance of symptoms were seen

ISAKOS

**International Society of Arthroscopy, Knee Surgery and
Orthopaedic Sports Medicine**

10th Biennial ISAKOS Congress • June 7-11, 2015 • Lyon, France

Paper #168

prior to the decline of knee functions. The population in this study was mainly from the rural areas, where recreational activities and strength training are infrequent. Therefore functional activities might have been underestimated.