064 PREVENTATIVE RISK FACTORS FOR OSTEOARTHRITIS IN GREAT BRITAIN'S OLYMPIANS

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10.1136/bjsports-2016-097372.64

Background Relatively little is known about the risk factors associated with osteoarthritis (OA) in Olympic athletes. As the first step towards prevention, knowledge of preventative/modifiable risk factors are needed.
Objective To examine injury patterns, prevalence, and risk factors for OA in Great Britain's Olympians, aged 40 years and older.
Design Cross-sectional study design, with an internal nested-case control.
Setting Athletes who had represented Great Britain at the Summer and/or Winter Olympic Games from 1932 to 2012.
Participants Great Britain's Olympians were invited to complete and return a web-based or paper questionnaire. The response rate was 32%, with 605 returns achieved (40–97 years), between the 22nd May 2014 and the 31st January 2015.
Assessment of Risk Factors Potential risk factors for OA included age, body mass index, gender, previous injury, lower limb mal-alignment, hypermobility (self-reported Beighton>4/9), comorbidities, index ring finger ratio, Heberden's and Bouchard's nodes, and having competed in either impact or weight-bearing loading sports.
Main Outcome Measurements The primary outcome measure was self-reported physician-diagnosed OA, whereby Great Britain's Olympians confirmed that a physician had previously diagnosed them with the condition. The most severe limb was selected as the index joint for data analysis, if bilateral.
Results Knee (14%), hip (11%), and the lumbar spine (5%) are most likely affected by OA. Injury appeared the strongest modifiable risk factor for knee [aOR 4.89; 95% CI, 2.64–9.06] and hip OA [aOR 10.46; 95% CI, 3.67–29.83]. Hypermobility appeared a risk factor for knee OA only [aOR 2.26; 95% CI, 1.08–4.74]. Intra-articular injuries through participation in weight-bearing loading sports were consistently reported in those with peripheral joint OA.
Conclusions As one of the few modifiable risk factors, joint injury prevention should be part of the future initiatives to reduce the risk of OA.