188. THE EPIDEMIOLOGY OF MIDFOOT PAIN AND SYMPTOMATIC MIDFOOT OSTEOARTHRITIS: CROSS-SECTIONAL FINDINGS FROM THE CLINICAL ASSESSMENT STUDY OF THE FOOT

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Background: Relative to other peripheral joint sites, characterization of symptomatic foot OA has been neglected. The midfoot is a unique small-joint complex vulnerable to weight-loaded deformity and dysfunction, and yet the contribution of OA to symptoms in this region is unclear. This is the first UK study to provide estimates of the prevalence, distribution, determinants and frequency of healthcare use among adults with symptomatic midfoot OA (SMOA).

Methods: Participants were adults aged ≥50 years registered with four general practices in North Staffordshire, recruited via a two-stage process involving mailed Health Survey and research clinic attendance. Midfoot pain in the past 4 weeks was defined by shading a foot...
manikin. Co-occurring radiographic OA defining SMOA was based on a score of ≥2 for osteophytes or joint space narrowing in one or more midfoot joints [1st and 2nd cuneo-metatarsal joint (CMJ), navicular-first cuneiform joint and talo-navicular joint (TNJ)] ascertained from weight-bearing dorso-plantar or lateral radiographs using a validated atlas. Disabling SMOA was defined using the Manchester Foot Pain and Disability Index. Population prevalence estimates were derived using multiple imputation and weighted logistic regression. Subsequent analyses involved complete case data. The distribution of midfoot joints affected was described and binary logistic regression estimated associations between SMOA and potential aetiological factors and multi-site joint pain. For SMOA, healthcare use was summarized as the period prevalence of foot-related consultation and pain medication use for foot pain.

Results: 5109 Health Surveys were returned (adjusted response 56%). Of 1834 invited, 560 attended a research clinic. The population prevalence was 19.4% (95% CI: 18.3, 20.5) for midfoot pain, 12.0% (10.9, 13.2) for SMOA, and 9.6% (8.6, 10.6) for disabling SMOA. Prevalence was higher in females, increased with age for SMOA, and was inversely related to occupational class. The 2nd CMJ and TNJ were most commonly affected. Compared with adults with pain elsewhere in the foot, SMOA was associated with obesity (age-sex adjusted odds ratio (OR), 2.02; 95% CI: 1.32,3.08), previous forefoot fracture (age-sex-obesity adjusted OR, 2.06: 1.14, 3.71) and pain in all other weight-loaded joint sites (age-sex-obesity adjusted OR, lower back, 1.85: 1.20, 2.85; hip, 2.83: 1.83, 4.39; knee, 1.88: 1.21, 2.92; hindfoot/ankle, 3.26: 2.01, 5.31; forefoot, 4.32: 2.47, 7.58), but not with clinically defined nodal hand OA (age-sex-obesity adjusted OR, 1.02: 0.66, 1.59) or previous high-heeled footwear among women (age-obesity adjusted OR, 0.96: 0.51, 1.86). Twelve-month period prevalence of foot-related general practitioner consultation was 46.2% (37.1, 55.3) and allied health professional consultation was 55.5% (46.4, 64.5). The one-month period prevalence of pain medication use for foot pain was 70.6% (62.3,78.9).

Conclusion: Compared with symptomatic OA at other sites, prevalence of SMOA appears generally higher than hip, similar to knee and lower than hand estimates. Observed patterns of association are consistent with the role of biomechanical factors in its pathogenesis.

Disclosure statement: The authors have declared no conflicts of interest.