

An Asian Perspective to the Problem of Osteoporosis

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Abstract

Introduction: Most research into the problem of osteoporosis has been carried out in Caucasian populations. This review highlights emerging data from research on osteoporosis among Asians, and some differences from Caucasian data. **Methods:** A non-systematic review of the English-language literature on various aspects of osteoporosis among Asian populations was carried out. **Results:** Compared to Caucasian populations, epidemiological trends in Asian populations appear to be developing along similar lines, although rates of hip fracture do differ by country and ethnicity, and are generally lower. Bone mineral density (BMD) carries similar relevance with regard to fracture risk, although hip geometry is also believed to have some impact. Risk factors for osteoporosis and fractures are somewhat similar, although dietary factors seem to play a larger role as reported in Asian studies. A uniquely Asian self-assessment tool based on clinical factors has been developed to assist in case-finding of osteoporotic patients. The few intervention trials with hormone replacement, alendronate and parathyroid hormone appear to show similar responses between Asians and Caucasians, although the response to vitamin D analogs in Asians appears better. Some differences in gene polymorphisms between Asians and Caucasians exist, and these may impact on BMD and fractures via different gene-environment relationships. **Conclusions:** Many aspects of osteoporosis in Asia appear similar to the West, but several interesting differences have emerged. These might lead to refinements in the strategies to manage osteoporosis within the Asian context.

Ann Acad Med Singapore 2002; 31:26-9

Key words: Asia, Diagnosis, Epidemiology, Fracture, Osteoporosis Self-assessment Tool for Asians (OSTA), Postmenopausal women, Prevention, Treatment

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