

Prescriptions of Chinese Herbal Medicines for Osteoarthritis in Taiwan: Analysis of National Health Insurance Dataset

Shinn-Jang Hwang^{1,3}, Fang-Pey Chen^{2,3}, Yu-Chun Chen^{1,3}, Fun-Jou Chen⁴

¹Department of Family Medicine, Taipei Veterans General Hospital, Taipei, Taiwan

²Center for Traditional Medicine, Taipei Veterans General Hospital, Taipei, Taiwan

³National Yang-Ming University School of Medicine, Taipei, Taiwan

⁴Graduate Institute of Integration Chinese and Western Medicine, Chinese Medical University, Taichung, Taiwan

Chinese herbal medicine (CHM) has been commonly used for treating osteoarthritis in Asian countries for centuries. The aim of this study was to conduct a large-scale pharmaco-epidemiologic study and evaluate the frequency and patterns of CHM use in treating osteoarthritis. We obtained a database of traditional Chinese medicine (TCM) outpatient claims from the National Health Insurance program of Taiwan for the year 2002. Patients with osteoarthritis were identified according to the diagnostic criteria from the International Classification of Disease among claimed visiting files. Corresponding prescription files were analyzed, and an association rule was applied to evaluate the co-prescription of CHM for treating osteoarthritis. The results showed that there were 20,059 subjects who visited TCM clinics for osteoarthritis in Taiwan during 2002 and received a total of 32,050 CHM prescriptions. Subjects between 40 and 49 years of age comprised the largest number of those treated (19.2%), followed by 50-59 years (18.8%) and 60-69 years group (18.2%). In addition, female subjects used CHMs for osteoarthritis more frequently than male subjects (female:male = 1.89:1). There was an average of 5.2 items prescribed in the form of either an individual Chinese herb or formula in a single CHM prescription for osteoarthritis. Du-zhong (Eucommia bark) was the most commonly prescribed single Chinese herb, while Du-huo-ji-sheng-tang was the most commonly prescribed Chinese herbal formula for osteoarthritis. According to the association rule, the most commonly prescribed CHM two drug combination was Du-huo-ji-sheng-tang plus Shen-tong-zhu-yu-tang, while the most commonly prescribed triple drug combination was Du-huo-ji-sheng-tang, Gu-sui-bu (Drynaria), and Xu-Duan (Himalaya teasel). Nevertheless, further clinical trials are needed to evaluate the efficacy and safety of these CHMs for treating osteoarthritis.

Key words:

Chinese herbal medicine, osteoarthritis, pharmaco-epidemiology, traditional Chinese medicine