G-RI-1

OUTCOME MEASURES OF CHRONIC ARTHRITIS IN HONG KONG: COMPARISON OF THE AIMS2 (CHINESE) AND WHO QUALITY OF LIFE - BRIEF FORM (WHOQOL-BREF) (HK)

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Objective: We have recently shown the AIMS2 (Chinese) is a reliable health status measurement tool for Chinese speaking arthritis patients. The WHOQOL-BREF (HK) has been validated as a QOL measurement tool in Chinese. The aim of this study was to compare the AIMS2 (Chinese) and the WHOQOL-BREF (HK) as an assessment tool to study the quality of life (QOL) of Chinese speaking subjects with chronic arthritis.
Method: The WHOQOL-BREF (HK) and AIMS (Chinese) questionnaires were administered concurrently to 157 subjects [RA=64; OA=18; healthy subjects =75]. The 12 sub-scales scores of the AIMS2 (Chinese) and the domain scores of WHOQOL-BREF (HK) were compared.
Results: Chronic arthritis patients had significantly poorer WHOQOL-BREF (HK) physical health [p=0.000] and psychological health scores [p=0.002] when compared with healthy subjects. AIMS2 (Chinese) performed well against the WHOQOL-BREF (HK) in QOL assessments. (1) There was significant correlation between the WHOQOL-BREF (HK) physical domain and the AIMS (Chinese) mobility [r=0.488], walking and bending [r=0.639], hand and finger function [r=0.361], arm function [r=0.398], arthritis pain [r=0.676], self-care ability [r=0.293], household task [r=0.265] and work [r=0.329] sub-scales. (2) The WHOQOL-BREF (HK) psychological domain correlated significantly with the AIMS2 (Chinese) tension [r=0.498] and mood [r=0.582] sub-scales. (3) Significant correlation was also observed between the WHOQOL-BREF (HK) social relationship domain and the AIMS (Chinese) social activities [r=0.301] and support from family and friends [r=0.240] sub-scales.
Conclusion: Patients with chronic arthritis have poorer QOL when compared with healthy subjects. AIMS2 (Chinese) is a reliable QOL assessment tool when compared with WHOQOL-BREF (HK), a previously validated tool, in Chinese speaking patients with chronic arthritis.

G-RI-2

INHIBITION OF SYNOVIAL FIBROBLAST PRODUCTION OF IL-6 BY TRIPTOLIDE, AN ACTIVE INGREDIENT OF TRYTERYGIUM WILFORDII HOOK F

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Objective: Triptolide (Tr) is an active ingredient of a Chinese herb, Trypterygium Wilfordii Hook f, that is widely used in China as an anti-rheumatic drug. We have previously shown Tr has suppressive as well as cytotoxic effects on immune effects, and for the first time, that Tr inhibits synovial cell growth. We have also been engaged in the synthesis of analogues of Tr. This study aimed to examine the effects of Tr and selected analogues (based on biological effects) – T59 and T60, on IL-6 production by human fibroblast-like synoviocytes (FLSs).
Methods: Synovial tissues were obtained from rheumatoid arthritis patients at the time of synovectomy or total knee replacement. Following removal of fat and collagen tissues, the synovial cells were cultured for 2 days. Tr or T59 or T60 at various concentrations were added. IL-1β (1 ng/ml) was added after 24 hours. The supernatant was removed at the end of day 2. The concentration of IL-6 in the supernatant was measured by ELISA.
Results: Tr, at concentrations above 10 nM, produced a dose dependent inhibitory effect on IL-1β-induced synthesis of IL-6 by FLSs. The concentration of Tr required to cause a 50% inhibition of IL-6 synthesis was 30 nM. Similar results were obtained with T59 and T60.
Conclusion: This study has further confirmed that Tr has direct effects on FLSs function. It also confirms that our route of Tr analogue synthesis is promising, and helps us to determine the chemical structure(s) of Tr that is important for its functions. Further studies will focus on the mechanism of action, such as the signal transduction pathway, of IL-6 synthesis inhibition by Tr.