Commentary

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Cluster Analysis and Factor Analysis to Separate the Heat Pattern from the Cold Pattern in a Cross-Sectional Observational Cohort of RA Patients

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Description

Rheumatoid Arthritis (RA) can be effectively treated with the help of TCM, or traditional Chinese medicine. The two primary TCM patterns for RA were the cold pattern and the heat pattern, which are essential for TCM treatment. The virus design is portrayed by dread of cold and wind, joint torment with a slim white tongue covering which can be feeling much better by hot spices. Interestingly, heat design patients experience the ill effects of serious joint torment with a yellow covering, with red enlarging of the skin and high skin temperature which can be feeling better by cooling spices. Chronic autoimmune Rheumatoid Arthritis (RA) is characterized by persistent inflammatory synovitis and destruction of joint architecture. Currently, Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), biologics, and Disease-Modifying Anti-Rheumatic Drugs (DMARDs) are typically used to manage RA patients' pain and inflammation. However, taking these medications for an extended period of time could result in adverse effects such as an increased risk of infection and impairment of the liver and kidneys. Customary Chinese medication has been demonstrated to be powerful in treating RA. Pattern classification, which is based on symptoms, tongue appearance, and pulse-touching, is an essential component of TCM therapeutic theory. Successful pattern classification serves as the foundation for the appropriate medications used to treat RA.

Symptoms of RA Patients into Cold and Heat Patterns

As per the hypothesis of example characterization in TCM, Yin, Yang, inside, outside, chilly, hot, lack and abundance were the super eight standards. The general principles were Yin and Yang among the principles. Therefore, in TCM treatment, it is very important to distinguish between Yin and Yang. Yang's heat pattern is a condition in which the body experiences heat evil or when yang qi is overactive and yin fluid is low. The functional decline brought on by cold evil, insufficient yang qi, or excessive yin qi, on the other hand, is referred to as the cold pattern, which belongs to Yin. Clinically, there are two main TCM patterns that apply to RA patients: the virus design and the intensity design. Fear of cold and wind, cold-related joint pain, and a thin white tongue coating can all be symptoms of the cold pattern, which can be alleviated with hot herbs. Interestingly, heat design patients experience the ill effects of extreme joint agony with skin expanding and high skin temperature, which can be feeling better by cooling spices. Pattern questionnaires, Chinese medicine textbooks, the literature, and the experience of doctors have all been the subject of numerous studies on heat and cold patterns. In any case, there were not many reports on the characterization of cold and intensity designs with group examination. Using cluster analysis, we categorized the symptoms of RA patients into cold and heat patterns, and we compared and contrasted RA characteristics among these two patterns. The conclusion of TCM condition depends on the Chinese medication industry standard Individuals' Republic of China, the Restorative Impact Standard of TCM Disorder Analysis 2012 gave by the State Organization of Conventional Chinese Medication. The age, gender, joint condition, pain condition, symptoms fever, sweating, color of face and skin, diet, characteristics of urination and defecation, and mental consciousness, tongue and pulse conditions associated with RA, and general demographic information were gathered. Treatments and interventions for RA were also collected. The International Standard Chinese-English Basic Nomenclature of Chinese Medicine and the World Health Organization's International Standard Terminologies on Traditional Medicine in the Western Pacific Region served as the foundation for the terminology. The specialists partaking in the clinical conclusions were all senior doctors of the rheumatology division and had a full comprehension of the finding and treatment rules. Side not set in stone by two doctors of rheumatology particularly tongue and heartbeat conditions. To guarantee the accuracy, veracity, and credibility of the data, each recording was closely monitored. The symptoms can be put into one of two categories based on the clustering results. The side effects in the main classification were palpitations, windedness, going bald, chest snugness, tinnitus, unconstrained perspiring, bite characteristic of the tongue, loss of hunger, late evening perspiring, a sleeping disorder, muscle torment, heel torment, subcutaneous knobs, weighty appendages, joint torment, joint intensity, tongue breaks, red tongue, dim red tongue, yellow oily tongue, and dangerous heartbeat.

Primary Pathological Effects of the Heat Pattern

The majority of them had heat pattern RA, which was characterized by dampness, heat, phlegm, and blood stasis. Phlegm and blood stasis heat syndrome and dampness and heat syndrome are two possible subgroups of the heat pattern. Palpitations, windedness, and chest snugness were normally brought about by the mucus and blood balance obstructive in the chest and heart. Phlegm and blood stasis were always signs of subcutaneous nodules in the joint of RA patients. In the meantime, side effects of weighty appendages, joint torment, joint intensity, and elusive heartbeat were generally shown in the RA patients with clamminess and intensity condition. As a result, the primary pathological effects of the heat pattern were phlegm accumulation, blood stasis, heat, and dampness. Fear of wind and cold, joint deformity, joint distension and pain, fixed joint pain, upset, fatigue, waist and knee weakness, joint stiffness, light red tongue, thin white coating, and thin pulse comprised the second category of symptoms. They were more prevalent in patients with cold pattern RA. Two subgroups of the cold pattern could exist: kidney and liver deficiency leading to cold syndrome and qi and blood deficiency leading to cold syndrome. The side effects of arthralgia, meager white tongue covering, unconstrained perspiring, short heartbeat were generally brought about by the qi and blood lack. In the meantime, RA patients with kidney and liver deficiency frequently presented with fatigue, weakness in the waist and knees, joint stiffness, and a weak pulse. We used cluster analysis and factor analysis to separate the heat pattern from the cold pattern in a cross-sectional observational cohort of RA patients. The nine symptoms that we discovered: Subcutaneous nodules, swollen limbs, joint pain, heat, red tongue, dark tongue, dark tongue, yellow greasy tongue, and string pulse may be the primary symptoms that can be used to classify heat pattern. On the other hand, the primary symptoms of a cold pattern are fatigue, weakness in the waist and knees, fear of the cold and wind, and a weak pulse. There are concentrate on impediments to note. In the first place, this was a solitary community cross-sectional concentrate in the southeast of China which perhaps not be widespread for all RA patients. Besides, the length of the majority of the RA patients was at a mean of 9 years. Accordingly, most RA patients were in the dynamic or late time of the illness. Another bias could be early-stage RA patients. Last but not least, in the not-too-distant future, we would like to see pattern studies conducted by national and even international multicenters with larger samples and longer follow-up periods. All in all, intensity and cold examples in RA patients could grouped well utilizing bunch examination and variable examination. The vast majority of RA patients with heat design were dynamic and liable to be endorsed two more DMARDs joined with MTX.