Acupuncture and constitutional diagnosis: where now?

Adrian White

The process of diagnosis based on clinical history and examination is known to be fallible. There are plenty of examples of this fallibility in conventional medicine, and it only took a few minutes searching PubMed to find a study showing that clinical diagnosis of pneumonia was only 75% reliable when compared with the ‘gold standard’ of x-ray image appearance.1

Similarly, Traditional Chinese Medicine (TCM) diagnosis has proved less than perfect in the past. One fairly typical study found 47–80% reliability in a clinical trial.2 In the absence of a gold standard, reliability has to be tested against another clinician, raising the chance of error. Also, much of the variability may be due to choosing conditions with multiple aetiology and presentations. With awareness of the problems leading to improved study design, diagnostic reliability seems to be improving. For example, inter-rater reliability in rheumatoid arthritis patients improved from 32% in 2005 up to 73% in 2008.3 More recently, Birkenfeld and colleagues found low reliability for some TCM diagnoses in patients with infertility, though agreement on Liver patterns was 96%.4 In the linked study, Mist and colleagues also found an overall reliability of over 96% in patients with a diagnosis of fibromyalgia.5 In this study, two acupuncturists made independent diagnoses using standardised information from questionnaire replies and medical history. Practitioners were reasonably independent though not completely blinded.

Mist and colleagues identified three main clinical subgroups in fibromyalgia (FM). Patients with Qi and Blood stagnation have widespread pain that is eased by low impact exercise. Patients with Qi and Blood deficiency tend to be lethargic, have dull diffuse pain, and are worse with exercise. Liver Qi patients have a stressful lifestyle which must be altered to achieve benefits; they ‘often have depression which improves with activity’. Clinical experience suggests these groups have different prognoses. The treatment approaches should be tailored for the different subgroups, including predominantly lifestyle changes with needles as a last resort.

Interestingly, subgroups of FM populations can also be identified by western diagnosis, and these subgroups seem to match the TCM diagnoses reasonably well. The validated 10 item scale known as the Fibromyalgia Impact Questionnaire (FIQ) can reveal two profiles: one with pain but low levels of anxiety, depression and morning tiredness; and one with high levels of pain, fatigue, morning tiredness, stiffness, anxiety and depressive symptoms.6 Seidel and Mueller suggested four subgroups in FM: 1) where pain is prominent, hypersensitivity is present, and psychological disturbance is minimal – somewhat like Qi and Blood stagnation; 2) where depression is prominent and secondary to the condition, like Liver Qi stagnation; 3) where depression is primary, which is apparently Qi and Blood deficiency; and 4) somatoform disorder which has no obvious correlate.7

Seidel and Mueller also suggest that treatment should usefully be tailored to the subgroup: subgroup 1) for example, would need strong analgesia and perhaps HT3 receptor antagonists – to which readers of this journal would add acupuncture; whereas patients in group 3) with primary depression need effective doses of antidepressant therapy, not just the low doses often used for pain; and group 4) would be best offered behavioural therapy.

There is nothing new or remarkable about this concordance between eastern and western diagnostic systems, since they are using similar diagnostic information. Some years ago, Coyle and Smith matched TCM diagnosis and pathological aetiology of infertility in women.8 Diagnoses are only labels written within one’s own terms of reference.

The question whether subgroups of FM patients differ in their responsiveness to acupuncture was the starting point for the project of Mist et al, who thought that the essentially negative systematic reviews of acupuncture for FM might conceal important treatment effects in particular subgroups, since these subgroups have not been kept separate in clinical trials.

Interesting questions arise, including whether differences between FM subtypes are due to basic constitutional differences or to a response to the environment — nature or nurture. Evidence on the Korean system of Sasang characteristics (which categorises personalities into four subgroups) suggests that subgroups are determined, at least in part, genetically: one of the subtypes can be linked statistically to polymorphism in a drug transporter gene.9 This information could clearly be useful in predicting a response to drug treatments in particular Sasang groups. In acupuncture, mice of different genetic strains show different degrees of analgesia to electroacupuncture.10 Patient characteristics such as extraversion, agreeableness, openness to experience and female gender were associated with placebo response under some circumstances.11

Significant advance in predicting treatment response seems tantalisingly close. We need no longer worry too much about having a primary aim of demonstrating the reliability of TCM diagnosis, though future studies need to be designed carefully, learning from the methods in this paper. In which other conditions can TCM and western diagnoses be matched? Headache would be a prime target. Does TCM diagnosis bring valid
additional diagnostic sub-subgroups that can make a difference to the patients’ prognosis with acupuncture treatment?

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REFERENCES