Acupuncture points and skin impedance

I enjoyed reading the recent article by Rezaei et al\(^1\) in your journal. The authors measured skin impedance on the anterior forearm of 18 participants and found that the impedance of the acupoint PC4 and pericardial meridian were significantly lower than that of the surrounding skin. I would like to express my opinions as follows.

**OVERLAPPING OF MERIDIAN AND VEIN**

A superficial vein named the median vein located on the midline of the anterior forearm is a common site for phlebotomy.\(^2\) It is rather parallel to the invisible PC4 and pericardial meridian (figure 1), although individual mappings of the vein are not uniform.

The veins have thin elastic walls and blood flowing inside; electrically they are very conductive.\(^3\) Mechanically, a skin portion with superficial veins is more compressible than skin without veins.\(^2\) Rezaei et al\(^1\) used a 15 mm Hg blood pressure cuff to stabilise the impedance probe on the forearm; the skin on the top of the median vein would form a closer electrode–skin interface than the adjacent skin, so a greater efficiency of current flow is allowed through the interface as well as a lower reading of skin impedance.\(^4\)

These electrical and mechanical considerations may explain the skin impedance of PC4 and pericardial meridian being significantly different from that of the surrounding area.

**SUMMARY**

Skin impedance has been proposed as indirect evidence of the specificity of acupuncture points. Based on the above, a caution is essential for interpretation that acupuncture points or meridians are electrically distinguishable when anatomical components underneath the acupuncture points and non-acupuncture points are distinct.

Rezaei et al\(^1\) presented an appealing study and I would not hesitate in recommending their article to anyone interested in the field of alternative medicine.

**Yiu Ming Wong**

*Correspondence to* Dr Y M Wong, Health Science Unit (PEC), Hong Kong Physically Handicapped and Able Bodied Association, S102, G/F, Lai Lo House, Lai Kok Estate, Shamshuipo, Kowloon, Hong Kong; ptt@hkphab.org.hk

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**Figure 1** Infrared vein imaging shows the median vein; the forearm skin is marked the same as in the experiment of Rezaei et al.\(^1\) The acupuncture point PC4 is illustrated on the right.
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