Crossover clinical trial to determine the effect of manual acupuncture at Siguan points (bilateral LI4 and LR3) on intestinal motility in healthy subjects

Yim YK\textsuperscript{a}, Kang WC\textsuperscript{b}, Cho JH\textsuperscript{d}, Shin JW\textsuperscript{d}, Lee NH\textsuperscript{d}, Choi SM\textsuperscript{e}, Koo ST\textsuperscript{e}, Park KS\textsuperscript{e}, Son CG\textsuperscript{d}.

\textsuperscript{a} Department of meridian and Acupoint, College of Oriental Medicine
\textsuperscript{b} Department of Information and statistics, Daejeon University, Daejeon 300-716, South Korea
\textsuperscript{c} Department of Biomedical Engineering, College of Medicine
Seoul National University, Seoul 110-744, South Korea
\textsuperscript{d} East-West Cancer Center, Dusan Hospital of Oriental Medical College
Daejeon University, Daejeon 302-122, South Korea
\textsuperscript{e} Department of Medical Research, Korea Institute of Oriental Medicine
Daejeon, South Korea.

This study examined whether manual acupuncture at the Siguan points (bilateral points LI4 and LR3) affects intestinal motility in healthy human subjects. Twenty healthy male subjects were randomly assigned either to real acupuncture (RA) at Siguan points or sham acupuncture (SA) groups in a crossover manner. All subjects underwent two experimental sessions: the RA group in the first session was treated with SA in the second session after a 2-week washout period, and vice versa. Each subject took 20 radio-markers and was treated with acupuncture 0, 12, 24, and 36 hours after radio-marker intake. Radiographs were taken at 6, 12.5, 24.5, and 48 hours, and the effect of acupuncture on intestinal motility was evaluated based on the distribution of the radio-markers in the ileum, ascending colon, transverse colon, descending colon, sigmoid/rectum, and outside the body. Defecating habit was monitored during the trial, and complete blood counts were checked before and after the two acupuncture sessions. The RA and SA results showed extremely similar distributions of the radio-markers in these five regions of the alimentary canal and outside the body in radiographs taken at four different times, verifying that there was no effect of manual acupuncture at the Siguan points on intestinal motility, at least in healthy human subjects.