Introduction
Acupuncture has been used in China for thousands of years. It is believed that the autonomic nervous system (ANS) activity can be altered by acupuncture only if deqi (得氣) is elicited. Patients will experience distinct sensations around points of stimulation during deqi. Studies have shown that the ANS changes strongly correlates with deqi sensations intensity. While many acupuncture studies have acknowledged positive effects, adverse effects have been reported including infectious disease transmission, organ punctures etc. Recently, non-invasive technique, such as Transcutaneous Electrical Nerve Stimulation over Acupoints (Acu-TENS), was shown effective in reducing dyspnoea and facilitating haemodynamic recovery. Most authors postulated that it works similar to acupuncture.

Objectives
1) to evaluate any ANS changes induced by Acu-TENS 2) if deqi sensations could be experienced, whether such changes associated with deqi sensations intensity

Methodology
This was a randomised, placebo-controlled trial. 36-healthy subjects were randomly assigned to Experimental group (Acu-TENS on right Hegu (LI4) and Quichi (LI11)); Control group (on bilateral kneecaps); or Placebo group (sham Acu-TENS on right LI4 and LI11). All subjects received 45-min Acu-TENS. Heart rate (HR) and mean arterial blood pressure (MAP) were measured before, during and after Acu-TENS. Standard deviation of the NN interval (SDNN), low frequency to high frequency ratio (LF/HF) of HR variability, which reflected the ANS activities, were measured. The Massachusetts
General Hospital Acupuncture Sensation Scale (C-MMASS) index was used for deqi sensations quantification.

**Result**
22-men and 14-women were recruited, mean age=32.8±2.1. Experimental group showed a significant increase in HR (73.5±6.3bpm to 75.9±6.7bpm, p=0.027), MAP (88.5±4.5mmHg to 91.0±4.1mmHg, p=0.004), SDNN (143.36±8.58ms to 153.69±7.64ms, p=0.002) and LF/HF (1.26±0.19 to 1.31±0.21, p=0.037) during Acu-TENS. Control group showed a significant increase in SDNN (140.21±8.72ms to 143.39±9.47ms, p=0.009) and LF/HF (1.21±0.09 to 1.23±0.12, p=0.033) while no changes in Placebo group. C-MMASS indices for Experimental, Control and Placebo groups were 3.23±0.3, 2.14±0.6 and 0.29±0.32 respectively. The between-group difference was significant (F=139.24, df=2, p<0.05). However, association between deqi sensations intensity and physiological responses was low (γ =−0.36 to 0.25). Acu-TENS to LI4 and LI11 was associated with increasing sympathetic discharge and deqi sensations were experienced. But deqi sensation intensity was not correlated with the physiological changes. Acu-TENS is a simple and non-invasive, it may be a useful adjunct in managing patients with various ANS dysregulations.