

Acupuncture and meridians: a histochemical study

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SUMMARY

The aim of this study was to elucidate the relationship between the structural specificities of acupoints and meridians as well as their clinical effects.

We processed 356 specimens, 287 of which from 48 adult and 2 newborn cadavers and the remaining 69 from living patients; samples were taken at three different levels: 1) beneath acupoints; 2) between meridians; 3) at a distance from meridians. We performed seven different staining to show the distribution of collagen fibers, reticular fibers, mucopolysaccharides (MPS), connective tissue, nerve threads, and blood vessels in specimens obtained from different areas.

We found that some structural and biochemical discrepancies associated with acupoints and meridians including: (1) mucopolysaccharides (MPS), in particular acid MPS; 2) collagen fibers; 3) nerve endings.

We discussed these findings from an anatomo-clinical point of view.

INTRODUCTION

Typical Traditional Chinese Medicine comprises herbal medicine, acupuncture, moxibustion, massage, prevention and surgery. Acupuncture, moxibustion and massage and partial prevention depend on applying “meridians” also called channels, and acupoints (Sistenich, 2001).

For thousands of years, meridians and acupoints have been one of the most mysterious subjects highly attracting the research interest. A number of researches highlighted many aspects of them. Firstly, meridians and collaterals are mutual in connection, transportation, induction, transmission and regulation to essence, qi (energy), blood and body fluid (Wen, 1981). Moreover, meridians are expounded on the bases of neural segments, central nerve system, blood vessels, neuro-humoral system, bio-electricity and cybernetics (Wen, 1981; Hu, 1987; Qiu, 1999; Liu, 2000;