Section 3 [ Acupuncture ]

03-2 The physical stimulations promote the resilience and the homeostasis of our body and two mechanisms of them

Mayumi WATANABE¹, Hidetoshi MORI¹, Kazushi NISHIJO¹, Kazuhiko YAMASHITA², Hiroshi NAKAJI², Yasugi NAKAMURA³, Keiichiro KITA³

¹) Department of Health, Faculty of Health Sciences, National University Corporation Tsukuba University of Technology
²) Department of Acupuncture, Takarazuka University of Medical and Health Care
³) The Society for Sound Healing

Objective: We investigated the effects and the mechanism of the acupuncture.

Methods: Nishijo/Mori and colleagues studied the function of the autonomic nervous system (ANS) with the instantaneous heart rate (IHR) as indicator. With the ANS blockers we also revealed the response of ANS when we insert needles to human body. For example, in our study of 1991, we conducted an experimental study on humans and elucidated that the physical stimulation promoted the resilience and the homeostasis of our body. Our recent study (2013) showed the physical stimulation (not acupuncture) on the lower thighs (mainly the bottom of the feet) also enhanced the above mentioned effects.

Results and Discussion:
1. The subjects sat on the chairs and they were given the acupuncture stimulation on their wrists (the skin and subcutaneous tissues) at the expiration. The stimulation for the duration of 15 consecutive breaths increased the function of the parasympathetic nerve (PN). At the same time that of the sympathetic nerve (SN) also enhanced. In short, firstly that of PN enhanced and secondly that of SN followed. Thus, it was observed that the physical stimulations promoted the resilience and the homeostasis of our body and we may regard that this is the first mechanisms.

2. In our recent study (2013) the subjects sat on the chairs and there were given the stimulation (50 times of fist-strikes) on the sole of the feet. Immediately after the stimulation the result of Floor Finger Distance test (FFD) was improved. At the same time IHR, the indicator of the function of ANS, showed that those of SN (adrenaline β stimulus) and PN were simultaneously increased as soon as the stimulation started. The same result was obtained from the study of the body vibration (the SOUND healing). This process of 2013 was different from that of 1991, however, both of them provided the effect; the promotion of the resilience and the homeostasis of our body. Therefore, we could regard it as the second mechanism of the physical stimulations which promotes the resilience and the homeostasis of our body.

Conclusion: In this way, there are two mechanisms of the physical stimulation in promoting the resilience and the homeostasis of our body.

Keywords: Physical stimulation, Autonomic nervous system, Instantaneous heart rate, Acupuncture, Homeostasis