Possible influence of the acupuncture on bronchial asthma

Radka Durdakova, Radomir Durdak and Frantisek Dorko
University of Ostrava, Czech Republic

Objective: The target of the research is the large intestine meridian, which according to the traditional Chinese medicine affects several organ systems of the body. The most affected systems are the digestive system, where respective points have effects on the digestion, motility and secretion, and some points even on the respiratory system, where effects on bronchial asthma have been described. The research focused on selected points on the large intestine meridian which affect the respiratory system and built upon our earlier study of the lung meridian, in which we have found a likely way of how the stimulation of the LU5 point affects the progression of bronchial asthma. The study proceeded by progressive dissection of the area surrounding the puncture point, into which is according to the acupuncture practice inserted a special needle. There upon were identified and studied the revealed structures and their possible role in alleviation of symptoms of bronchial asthma.

Results: During the therapy using acupuncture, feeling of “qi” by the patient, which is usually described as a tingling or itching sensation, is required by the physician. With respect to this we can assume that the major affected structure is a nerve, which is irritated by the needle inserted in its vicinity. The area of the acupuncture point LI4, Hegu in Chinese, contains besides the dorsal interossei muscle and cephalic vein the dorsal digital branch of the radial nerve, which gradually branches from the radial nerve, which has root innervation in C5-C8 in the lateral fascicle. After it’s descent behind the axillar artery it continues within the radial sulcus, whereby it passes from the ulnar side to the radial side of the arm, and by penetration of the radial brachial intermuscular septum it gets onto the front side of the forearm where it branches into the superficial and deep branches. The superficial branch of the radial nerve, which is a sensitive nerve, continues to the dorsal side of the hand where it further branches into rami communicantes ulnaris and dorsal digital nerves. Irritation near the nerve probably creates an impulse, which spreads along the radial nerve up to the C5, C6 and C7 section of the spinal cord. A sympathetic ganglion cervicale medius, which is in the C5 section, sends post sympathetic strands - grey communicating branches - into C4 and C5 sections of the spinal column, and through their irritation are activated beta receptors, which in turn decrease the mucous secretion in bronchi and promote the dilatation of bronchi.

Figure 1: The acupuncture point LI4

Biography

Radka Durdakova currently studies in the 3rd year at the Faculty of Medicine in the University of Ostrava. She leads together with Assoc. Prof. MUDr. František Dorko, Csc. for the second year a research team focused on objective research of acupuncture pathways. Their study focusing on objective effects of the acupuncture points on the bronchial asthma. She lectured at international conferences in London, Bratislava and Ostrava. Their study “Anatomical study of potential connection between the acupuncture point LU5 and sympathetic reaction of spinal nerves” was published in the Merit Research Journal of Medicine and Medical Sciences (IF according to the International Scientific Indexing 1,257). She has studied in China during 2014-2015 at the Beijing Language and Culture University and Beijing Normal University.

radka.durdakova@gmail.com