

# Relationship between Acupuncture Points and Psychological Functions

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Acupuncture points (AP) of human skin are used in the diagnosis and reflexotherapy of somatic diseases. In mental disorders, however, such therapy is usually contraindicated, even though the emotional factor does play an active role in the development of somatic diseases [3,7]. We have been unable to find published data dealing with the diagnosis of mental disorders or an attestation of normal psychological functions using AP. In order to assess normal psychological functions, we performed an active search for the most informative region of the skin, which turned out to be the anterior surface of the ear. Looking for the optimal way of recording of the state of AP, we chose to measure the temperature difference between symmetrical AP. The psychological functions selected were asymmetrical ones: visual and motor.

## MATERIALS AND METHODS

To measure AP temperature we used an electrothermometer with a sensitivity of  $0.1^{\circ}\text{C}$ , a thermocouple wire end with a diameter of 1 mm, and a heating-up time of no more than 3 sec.

Acupuncture points which are known in auriculotherapy as "finger point" and "eye point" [8] were under investigation. The first point is situated in the uppermost part of the anterior sur-

face of the ear, while the second point is located in the middle of the ear lobe.

For assessment of motor asymmetry of the fingers the test subject was asked to perform alternately flexion, abduction, and extension of the fingers. The subject then ganged which hand had more obedient fingers. The investigator monitored finger movement coordination according to how isolated from the other fingers the movements were.

Visual asymmetry was assessed by Rosenbach's method in Bragina and Dobrokhotova's modification [2]. The visual test was as follows: the test subject held at a distance of 30-43 cm a sheet of thick paper  $5 \times 10$  cm in size with a  $1 \times 1$  cm hole in the center. Through this hole the gaze was fixed on an object 2-3 cm away and, keeping this position, the subject alternately closed the left and right eye. The eye whose closure resulted in a shift of the object was considered the leading eye.

Two hundred persons of different age and both sexes were examined. The data were processed statistically using the sing test.

## RESULTS

The temperature asymmetry for a "finger point" amounted to an average of  $0.81^{\circ}\text{C}$  with a higher temperature at the left ear point in 53% of all cases and at the right ear point in 47%. Bekhterev [1] showed that the temperature difference between symmetrical points of the body in a healthy individual should be no more than  $0.3^{\circ}\text{C}$ . The anterior surface of the ear seems to be an exception

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to this rule, because we have found a difference of 2.5°C in healthy individuals and even one of 4°C in a schizophrenia patient in remission.

In the majority of cases (88%) the psychological test for motor coordination asymmetry revealed that the fingers were more obedient on the side of the point with higher temperature. We found the same correlation between temperature asymmetry at eye points and visual asymmetry revealed by the psychological test. The average temperature difference between right and left points was 0.38°C, the leading eye being the one on the side of the point with lower temperature.

It is known that skin temperature derives from the intensity of the blood flow in it, and there is a complex relationship between the circulation in the skin and that in the internal organs [4]. It may be deduced that the correlation obtained between AP temperature and brain functions is mediated by the regulation of the circulation, and this is what lies at the basis of needle reflexotherapy [5].

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Data on our investigation of creative abilities and the functional asymmetry of the brain with regard to thinking are not here. They may be found in our application for a patent [6].

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