

## About the Real Significance of Miasmatic Theory

Modern historiography recognizes priority of Hippocrates in creating a doctrine on the influence of environmental factors on human health and disease. In the meanwhile, there are reasons to criticize the widespread reconstruction of the history of main epidemiologic theories. Some authors accept a certain „miasmatic“ theory of Hippocrates, which then was replaced by the theory of „contagions“ of G. Fracastoro. I argue that while reading texts of the “Hippocratic Corpus” it is impossible to find the exact statement qualifying such “miasmas” as certain active substance of disease. To my point of view, “miasmas” look like physical pathogenic factors: of course, swampy area, according to Hippocrates, spread “miasmas”, but this is closer to a characteristic of unhealthy air filled with stench, the existence of which in the atmosphere is in general harmful to human body. In my opinion, it is impossible to find a place in Hippocrates, on the basis of which the “miasmas” can be described as a disease transmission mechanism. However, G. Fracastoro writes about such a mechanism in the context of “contagions” concept. I think that these two theories does not contradict, but complement each other. It seemed to me that Hippocrates was more about describing a certain physical nature of the surrounding human atmosphere as a pathogenic factor.

This idea could be also proved by introduction of the new source: Galen’s treatise “Commentary on Hippocrates’ ‘Aphorisms’”. It is known that in doctrines of Hippocrates and Galen there is “krasis”, which characterizes the state of health of the human body, and “dysrasia”, which characterizes the state of the disease. The same system of concepts is applied by Galen (explaining the ideas of Hippocrates) in relation to the air surrounding a human. The atmosphere may be wetter or drier, colder or warmer, etc. The surrounding air can be characterized, like the human body, by a varying degree of dysrasia. According to Galen, there is an exchange of pneuma between the body and the surrounding air — pneuma from the air gets into the body, where it undergoes certain transformations, including the process of the formation of three types of endogenous pneuma.

Galen distinguishes climatic dyskriasias by their physical nature and the nature of their effect directly on the human body — for example, wet dyskrasia of the air is more dangerous than dry. That is an explanation of the mechanism of influence of the so-called “miasmas”: excessively humid air and unhealthy for the human body products of decay in it, evaporated by the swamp, are the carrier of harmful excesses absorbed by the human body. Following Plato, Galen distinguished two forms of breathing: through the lungs and the skin. This also

explains the harmful effects of swamp miasmas in relation to the skin diseases, complications of wounds, etc. Physical factors that come from the outside with air that is in dyskrasia by the wet type are characterized as “unhealthy,” and sometimes “deadly”. According to Galen, air dyskrasias are simple and complex, he distinguishes four simple ones and eight complex ones. This can be understood in the categories of opposites “wet” — “dry”, “cold” — “warm”. Accordingly, wet dyskrasia of a swampy climate (this is where the “miasma“ came from in the literature) helps to the development of skin diseases, fevers, diarrhea, purulent abscesses, and provokes seizures of epilepsy.

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