

Halotherapy – descendant method of speleotherapy

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Halotherapy (HT, halos = (gr) salt) modern is a descendant method of speleotherapy and mainly uses dry aerosol sodium chloride microparticles, often containing other mineral salts for the treatment of chronic non-specific respiratory diseases, respiratory and skin allergies. Halotherapy is a method of treatment based on artificially recreating in Uzhhorod Branch of Odessa Resorts Scientific Research Institute the microclimate conditions and salt aerosol of Solotvino's salt mines gallery in period of years 1975–80 (from M.D. Torokhtin, 1999).

The concept of Halocamera – salt chamber, its technical and medical application as technology – treatment in artificial salt microclimate was used in 1984 year (Authority certificate 1225569 22.12. 1985, P.P. Gorbenko).

Halo-aerosol therapy has a very high efficiency in treating courses of patients with asthma (Y. Chonka et al., 2014), has a significant influence on peroxidation of lipids and antioxidant protection at patients with acquired pneumonia and patients with other pulmonary pathology (I.S. Lemko, 2014; O.I. Lemko et al., 2014). A.V. Chervinskaya (2014) described a innovative method of controlled halotherapy and prospects for application.

Based on the analysis of the elements of the halotherapy room construction and the regime of its operation obtained the following conclusion:

Incorrect operation of halochambers and equipment, an excessive number of patients in the treatment room, and an inadequate period for the regeneration of medical factors can lead to a systematic increase in the relative humidity and changes in other parameters of the medical environment. In such cases, special attention should be paid to microbiological control of the air, the equipment used, the floor, the ceiling and the walls of the halochamber – especially at the juncture points of the multi-layered salt coating with the primary wall covering (most often tiled with wooden shavings or similar materials). It is possible to develop and seed the environment with microorganisms (for example, *Staphylococcus aureus*), which are entered by patients or service personnel and have the ability to adapt to high concentrations of sodium chloride during repeated misuse or during frequent and prolonged contact with elements of the halocamera structure that are degraded by salt.

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Observations regarding the microclimate, the carbonic gas and aeroions in the halotherapy salon (INRRMFB, Bucharest), together with some quantum considerations about action of air ions

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Knowing the environmental characteristics of the halotherapy salon is essential for the evaluation of its therapeutic qualities.

Recent determinations (October 10, 2017) have shown that, the atmospheric pressure was the same both inside and outside the enclosure, but the other parameters showed differences.