

AIR AND WATER, BASIC FACTORS IN ROMANIA'S SPA RESORTS

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ABSTRACT. – **Air and water, basic factors in Romania's spa resorts.** The paper makes an overview of the forms of naturistic treatments based on the qualities of air and water (aerotherapy, heliotherapy, hydrotherapy, mofette and saline cures) in the Romania spa resorts. Some medical indications for prophylactic, treatment and rehabilitation cures are included.

Keywords: spas, health resorts, medical indications, contraindications.

1. INTRODUCTION

Air and water are the two basic components of life on Earth. Without food, the human body can stay alive up to forty days. It can do without water more than three days, but only one-two minutes in the absence of air.

The maximum ingested food daily is 1.5 kg. The daily consumption of water usually amounts to 2.5 kg (drinking water, food water and metabolic water produced by the combustion of nutrients). In addition, the daily water supply to the community is 25-60 l/individual – 280 l/individual. Within a lapse of 24 hours, man inhales 15 kg air, on average.

These data allow our immediate assessment of the value of air and water for life, and their quality, basically of their chemical composition and physical properties, influencing people's state of health or illness.

In his „Îndrumări studenților în geografie” (Guide-lines for Geography Students) addressed to young people who were first starting on the path of life, George Vâlsan, the great Romanian geographer, points out four baths everyone should begin his/her day with: internal water bath, internal and external air baths, external water bath and a moral (spiritual)bath.

Since human activity, especially in towns and industrial regions, has polluted and degraded air in particular, but also water, thus enhancing morbidity among the population, taking refuge, even though for a short while, in still unaltered, healthy environments would help preserving and recovering one's health state.

2. SPAS AND HEALTH RESORTS: OASES OF HEALTH

In general, spas and recreation resorts have been developed in the mountains, hillsides or on the sea coast, wherever mineral springs and special landscapes exist.

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Romania is a country particularly rich in cure sites. There are thousands of mineral springs with a distinct chemical composition and concentration, salt lakes, therapeutic muds (sapropelic, mineral or peat), mofette, salines, mountain summits, hilltops, montane valleys with gorges and waterfalls, coniferous, beech and oak forests, a cliffed or open sea coast, with salt and fresh water lakes in its proximity.

All these assets have been known from ancient times. Herculane, Geoagiu, Moneasa and Săcele spas were used as early as the Dacians times, the Romans being the first to exploit them in an organized manner as proved by vestiges of balneary installations, altars, commemorative stones devoted the Hercules, Esculapus and Hygeea, the gods of health; traces of spas have been found in the vicinity of salt domes, in the Olt Valley at Călimănești-Căciulata-Cozia, as well as on the shores of Pontus Euxinus (the Black Sea) at Tomis and Calatis.

In the Middle Ages, people continued to use the therapeutic benefits of mineral springs, various documents attesting to numerous such well-known places. For example, in a letter written by Pope Innocent the 7th (1404-1406) mention is made of the Băile Felix (Felix Spa) marvellous waters, a hospital being also built there, wherefrom the name of Băile Episcopiei (Episcopal Spa). The travel notes of some 16th – 18th century foreigners to these places speak of treatments given there. Thus, Antonio Posevino recalls the diseases treated in Transylvania, where they have „particularly good spas”; Georg Werner and G.P. Campari mention the hot water springs of Oradea; Erasmus von Schneider refers to „the most wonderful mineral water springs” on the Ceremuș River; Friedrich Sfeld notes the presence of some hot springs at Tismana, and after enumerating the salines of Turda, Ocna Sibiului, Cojocna, Ocna Dejului and Praid, he gives some information on the „healing-springs” in their vicinity; Friedrich von Bauer makes some medical remarks on mineral springs in Banat; other travellers mention the salt springs of Slănic (Moldavia), and the mineral springs of Harghita.

The first physico-chemical analyses date to the 18th century. Scientific works are devoted to mineral waters, mofette, solatara and the spas of Transylvania, Moldavia or Wallachia. Many mineral waters won medals in international contests and universal exhibitions (gold: Slănicul Moldovei – Vienna, 1873; Paris 1889; Băltătești – Paris, 1900; Covasna – Trieste, 1882, etc.).

As from mid-19th century, numerous spa establishments were set up, equipped with cure installations and staffed with specialist medical personnel, so lots of patients used to seek treatment there. Besides these, there were also health resorts in mountain, hill and lowland areas, usually located in the proximity of forests and lakes, which people sought for their fresh-air and picturesque landscape, as well as for convalescence sessions.

The first to seek refuge from the heat of the plain in the quiet and cool of lordly mansions or of monasteries were the ruling princes and the Court. Later, it was the intellectuals who began choosing the countryside, the traditional villages hosting religious or lay festivals over the year, or locations in mountain regions where they could walk up the tracks or wonder in the forests lining the river banks, hunt and fish. After a while it was the turn of young people to seek the mountainous



environment for practicing winter or summer sports, or the marine environment for sun-bathing on its beaches.

In the 20th century, a spas and health resorts network, having a prophylactic, therapeutic and rehabilitating character, was already in place. It included about 30 permanent health resorts of a general profile, staffed with physicians and nurses, equipped with treatment facilities (electrotherapy, swimming-pool, tub baths, mud and wax wrappings), accommodation facilities, out-door cures in parks, tourist information services, opportunities for recreation and excursions. A number of 60 local resorts, usually seasonal, with modest cure facilities, as a rule only for hydro- and creno-therapy, and around 400 localities, spread out in almost every county of Romania, renowned for their natural cure factors, but without therapeutic facilities, are sought by the locals.

The National Institute for Rehabilitation, Physical Medicine and Balneoclimatology has drawn up a hierarchy of counties by number and importance of resorts, length of cure season, bio-climatic traits, presence and type of mineral waters and of other cure factors: muds, salt lake, mofette, saline and sea water. The table is headed by Harghita (3 resorts of general interest, 4 of local interest and 29 localities reporting therapeutical factors), Maramureș, Prahova, Suceava, Covasna, Vâlcea and Constanța.

The counties with the highest therapeutic potential (according to the above criteria) are situated in the Carpathian Arc, rich in mineral waters, mofette, a bracing or sedative climate (depending on altitude) and a wealth of vegetation. As important is Constanța County with its eleven, general profile, resorts.

3. SPAS AND HEALTH RESORTS. MEDICAL INDICATIONS AND CONTRAINDICATIONS.

Health resorts are sought for air therapy and curative and rehabilitation treatments for the improvement of thermal regulation, cutaneous circulation of the blood and nutrition. Prophylaxis is also practiced, because as the saying goes, it is easier and cheaper to prevent than to treat.

Medical indications depend on the type of air-bath, which is conditioned by thermal, hydric and aerodynamic factors (temperature, humidity and wind).

Heliotherapy has prophylactic indications in children and adults and also curative in children with ORL affections, tracheal-bronchic, rachitis, endocrine hypofunctions, and in adults with allergic asthma, bronchitis, chronic, degenerative and dermatological affections. Air and sun exposure differs in terms of weather, season, day-time hour, affection, partial or total exposure.

Having in view the high quantity of solar radiation at altitude, because the air mass is more depleted there than in the lowlands, exposure is not indicated in patients with cancer, evolutive pulmonary tuberculosis, evolutive infectious foci, gastero-duodenal ulcer, hyperthyroidoses, asthenic neurosis, and decompensated chronic cardio-vascular diseases.



Climatotherapy proper is recommended in order to stimulate or deplete the activity of the vegetative neuro-endocrine system, the therapeutic effect being general and unspecific, targeting the entire body, re-balancing internal homeostasis and thermoregulation, improving cutaneous blood circulation and nutrition. Mountain resorts are indicated for asthenic, convalescent, neurotic, physical and intellectual overworked people, patients with pulmonary and other types of tuberculosis; incipient endocrine diseases (benign hyperthyroiditis), rachitis and growth disorders in children, as well as for body training and bracing.

Besides aero-and-heliotherapy, also hydro- and creno-therapy is available, mineral wcuersater depending on the type and characteristics of the mineral waters.

In terms of chemical composition and concentration *carbo-gaseous, alkaline, chlorine-sodic, sulphated and sulphurous waters* are prescribed for **internal cures**, usually for liver or kidney disorders; and **external cures** for vascular, gynaecological, rheumatic and other diseases.

Iodurated waters: **internal cures**: endocrine, metabolic, and ovarian affections; **external cures**: rheumatic, degenerative, gynaecological diseases and dermatoses.

Thalasotherapy (sea-side cures) depends on the condition of the sea, insolation, heat loss grade (baths: cold 13°C, cool 17-19°C and warm >27°C). Cold and rough waters, have a tonic effect, warm, quiet waters have a sedative impact. The sea water has external uses, on mucosae (in ORL), and internal uses, stimulating digestion. Sea baths influence peripheral circulation, and metabolic processes; salinity stimulates the excitability of skin receptors, while waves are an efficient massage procedure.

Other naturistic therapies in spas and health resorts involve hydrokinetic therapy (gym in water) or medicinal herbs therapy: phytotherapy (baths), *aromatherapy* (tees, inhalations), *homeotherapy* (medicine very much diluted). *Fungitherapy* (mud baths or mud ointments), mud being bacteriostatic, anti-allergic and a stimulent of skin receptors; *psammootherapy* (sand baths), *argillootherapy* and *eroionotherapy*.

Resorts in which mofette (emanation of therapeutic gases up to 90% CO₂, in zones of post-volcanic activity) and solfatara (variable SO₂ and H₂S ratios) exists have beneficial body effects (vasodilatation, cutaneous arterial circulation, hypotension, trophicity of atonic wounds) and are indicated in heart diseases, peripheral vessels, varicose ulcer, rheumatism, gynaecological affections and dermatites.

In salt dome areas, in disaffected salines with a constant, relatively cold microclimate, sodium, potassium, calcium and magnesium aerosols, resorbed by the epithelium of pulmonary highways, good results are obtained in unspecific chronic respiratory affections, obstructive illnesses (broncheal asthma, chronic bronchitis).

Karst caves with high concentrations of calcium ions and calcium carbonate are indicated for patients with hypocalcemia (thetany, migrenes), psychic disorders (depressions, psychoses), neurological affections, dental decay and cataract of the eye.



4. CONCLUSIONS

Air and water, the purest forms in nature, are a means of preserving and recovering one's state of health, being devoid of the contraindications of allopathic drugs. They can be found in a healthy environment with plenty of quiet and vegetation, usually spas and health resorts, provided technological progress (industries, transport, household refuse, phonic pollution, etc.) has not reached them. Medical indications depend on the characteristics of local natural therapeutic factors, plus climato-hydro-electro-kinetotherapy installations

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