„MEDICAL HYDROTHERAPY” OF GEORGE BAIULESCU – AN HISTORICAL PERSPECTIVE

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Abstract: The “Medical Hydrotherapy” was published in 1904 in Bucharest, at Minerva Publishing House and is kept in the County Library of Brașov next to other very valuable books. In 698 pages George Baiulescu MD, head of Hydrotherapy Department and professor of hygiene at Romanian Gymnasium in Brașov, included 53 photographs. The book is written in the Romanian language of the beginning of the 20th century and is structured in one Introduction and 2 parts: „The physiologic action of Hydrotherapy” and „The Reaction”. The first part has two chapters „The Technique of Hydrotherapy”, „The Hydrotherapeutic applications for sudation”, „The Compresses”, „The Irrigations”, „The Drinking Water”. There are pictures of procedures done into the hospitals: foot shower, ascending shower, massage shower, wet package, bath of light, steaming bath with warm air. There are also are presented warm and cold applications and the therapy with ice. The author clearly underlined that the watery therapy is depending of many factors as water’s temperature, time of application, individuality of the patient, skin’s sensibility, nervous activity and reaction, peripheral circulation, patient’s reactivity and type of pathology and others. The book included the actions of hydrotherapy on Central Nervous System, blood circulation, „morphology” of the blood, „organic exchanges”, breathing, muscle strength, temperature, secretion and excretion and is giving details about these actions. It is a proof that the doctors of that time tried to reach above their condition of practitioners, becoming theorists in the same time.

Key words: Medical Hydrotherapy, history of medicine, book.

Among a sum of cultural treasures hosted inside the old walls of Brașov County Library, “Medical Hydrotherapy” is one of the rare books useful to understand the old times, époues and the Romanian culture evolution. A part of these books were the property of the physician Emil Bologa, local doctor and very well known for his research in the field of history of medicine in Brasov and Romania. The “Medical Hydrotherapy” was published in 1904 in Bucharest, at Minerva Publishing House, Institute of Graphic Arts. The rare sample of the book has the owner’s autograph from April 18, 1938 and an “ex-libris Dr. Emil I. Bologa” representing a a

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skull, a snake, a book and contained the Latin expression "mulla dies sine linea".

Figure 1: First page of the book

Head of Hydrotherapy Department and Professor of Hygiene at Romanian Gymnasium in Brasov at the dawn of 20th century, George Baiulescu MD wrote this book in the aim to help the students, doctors and specialists to understand, learn and practice hydrotherapy in their medical practice.

Written in the beautiful and authentic old Romanian language of the beginning of the 20th century, full of neologisms, the book is structured in one Introduction and two parts, collecting in 698 pages 53 photographs and a lot of medical information very new for the beginning of the 20th century.

The first part has two big chapters: "The physiologic action of Hydrotherapy" and "The Reaction" and the second part is structured on five chapters: "The Technique of Hydrotherapy", "The Hydrotherapeutic applications for sudation", "The Compresses", "The Irrigations", "The Drinking Water".

The book shows pictures of the cure rooms of Brasov hydrotherapeutic department, one for men, one for women and the technical conditions and electrical machineries necessary to provide the hydrotherapeutic treatment: lifting tank for water - Carré system, pressure accumulator tank - Henry System, showers’ plumbing. In addition, the book describes the technical details of hydrotherapeutic procedures provide into the hospitals: foot shower, ascending shower, massage shower, wet package, bath of light, steaming bath with warm air (general warm air bath and local warm air bath and steam). There are also presented warm and cold applications and the therapy with ice: wet sheet friction, refrigerating bag, coil rubber tubes, ice bag, and rectal refrigerating bag.

Figure 2: Illustration from book

In the chapter “Introduction” doctor Baiulescu underlined the factors that physiotherapy and watery application depends on: 1. water’s temperature; 2. time of application; 3. individuality of the patient; 4. skin’s sensibility; 5. nervous activity and reaction; 6. peripheral circulation; 7. patient’s reactivity; 7. type of pathology and others. Additionally, the author showed that there is a big difference in practicing hydrotherapy’s applications” in France where the main procedure were showers comparing with Germany and Switzerland where are used more often Priessnitz procedures like half bath, frictions with wet and cold sheet, wet or dry packages, perineum bath.

The physiological effects of hydrotherapy
are very well described. First, Baiulescu postulated: “all applications not included in 33-36 C are excitants for a body and induce physiological changes”. The book included detailed actions of hydrotherapy on central nervous system, blood circulation, „morphology” of the blood, „organic exchanges”, breathing, muscle strength, temperature, secretion and excretion.

In addition, the cardiovascular effects depend on the temperature and on the time of application. There are precisely described the effect of warm application in intensive or non-intensive application. Considering that the effects of hydrotherapy influence the central nervous system, the circulation, the “morphologic condition of blood”, the “organic exchange”, the breathing, the muscles strength, the temperature, the secretion and excretion, doctor Baiulescu is detailing these domains further. Concerning the hydrotherapeutic effects on central nervous system Baiulescu considered that hydrotherapy influences as well locally as at distance thus “a cold application on feet has a reflex influence of brain and meninx’s vessels. A hot bath of hands influences on respiratory organs.”

Based on the assertion of reflex points and their stimulation techniques Baiulescu described the tonic or relaxing effects of massage and as well physical effects as psychic influences of hydrotherapy.

Baiulescu wrote the conclusions related to the effects of intensive warm application vs. cold applications: „through local cold and warm applications and depending on the intensity of thermal excitation will be induced a primary vascular constriction followed sooner or later by a vasodilatation inducing a skin hyperemia”.

Concerning the influence of hydrotherapeutic applications on „the morphology” of the blood there are remind the publications of Winternitz, Rovighi sau Thayer. Thus, the author remembered „Winternitz found a maximal increase of 1860 thousands red blood cells/cube mm and the number of white blood cells is three times higher and haemoglobin is 14% higher than before the applications.

On muscles, “cold applications increase the muscles’ capacity and labor and warm applications decrease the muscles labor and effort capability if not combined with mechanic action”.

In the chapter „The Reaction” is a description of hydrotherapeutic effects and a classification of these effects in primary and secondary. Also, “each technique of applications has to specify three periods: 1. action period; 2. reaction period and 3. equilibrium setting”.

The book presented a very modern concept related to the medical management: 1. The patient admission is mandatory to assure the continuity and regularity of hydrotherapeutic applications. 2. The favorable effect of the cure mostly depends of the “hospital management meaning the doctors’ experience and the pluming and technical installations (modern machines able to mathematically control in short time the water temperature and pressure)”.

Convinced of the medical effect and importance of hydrotherapy, George Baiulescu sustained in 1904 that „hydrotherapy is recognized today from the majority of physicians as an excellent “medication” not only in chronically diseases but in acute pathology, too, especially in typhus fever”. „The patients won a strong confidence in watery therapy beyond doubt. The proof is the high addressability of patients in all hospitals appropriate equipped with good techniques, plumbing and a run with good management”. “Still, there are many reasons that hydrotherapy is not enough valued, known and practiced”. Baiulescu explained that the procedures are not enough known because hydrotherapy was practiced for many centuries by false “therapists” being completely compro-
mised, also because “physicians considers hydrotherapeutic practice as a “humiliation” and not practicing is a vicious circle leading to a deep lack of skills” and because “hydrotherapeutic techniques are considered as “inconvenience”, not cozy and completely neglected”.

Further, doctor Baiulescu insisted on the mandatory of doctors’ theoretical knowledge to be complete with practical skills on the manner of applying the hydrotherapeutic techniques.” If the doctor has not enough skills and experience in handling the apparatus and tools used to apply hydrotherapy, he will be fallible and the benefit effects of the applications can be compromised”.

Each doctor should be able to apply all the procedures but if this is not possible is compulsory at least to supervise the applications he prescribed”.

Finally, the importance and value of “Medical Hydrotherapy” is non contestable as a very bold publication about a new field of medical practice, more practical then others and which needed advertising and motivation to be operable.

Even the book received objections from Crăiniceanu as not being a valuable book as medical literature, the initiative to write a useful book for doctors is remarkable. This book encouraged all doctors to learn and practice hydrotherapy and finally is a proof that the doctors of that time tried to reach above their condition of practitioners, becoming theorists in the same time.

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