

Hydrotherapy (Project Hydriades*)

‘Group for Medical Studies of Thermomineral Waters, Auth’

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*Hydriades: a group of water nymphs who protected various springs and they attributed therapeutic properties to their water.

ABSTRACT: Natural resources are being used for the maintenance of health. According to the Law 3498/2006 of the Greek Parliament the natural health spas must be validated for their therapeutic properties. The Association of Municipalities and Communities of Health Springs of Greece signed a contract with the Research Committee of the Aristotle University of Thessaloniki, Greece, in order to conduct the research programme: ‘Study for the documentation of the therapeutic properties of the thermomineral waters’. The main aim of the project is: (1) the study of biological and therapeutic parameters of the natural health sources, (2) the identification of the indications and contraindications of hydrotherapy. Aims parallel to the main ones have been also set.

Key Words: Hydrotherapy, Balneology, Mineral water, Natural resources, Natural health spas.

INTRODUCTION

Natural waters have been universally utilized by native cultures for healing, purification ceremonies, sacred gatherings and tribal meetings. It has been recognized for centuries that certain places contribute to the promotion and maintenance of health due to their favorable climatic and natural health resources. These are variously known as mineral water resorts, thermal health resorts, spas natural health resources.

In the past, public baths were used not only for physical exercise and personal care, but often as town social centres, for relaxation, and social entertainment. The social contribution of hydrotherapy started declining after the contemporary therapeutic revolution that has taken place since the last decades of the 19th century and mainly after the start of the First World War. Nonetheless, many of the traditional European *thermae* not only continue their function but further

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develop their facilities, expand and prosper. What is more, it has been noticed that a wider part of the population, besides the elders, use these facilities to an ever increasing degree.

The aim of this presentation is to publicize the initiative of the Association of Municipalities and Communities of Health Springs of Greece and to form the group *Group for Medical Studies of Thermomineral Waters, Auth.*

DEFINITIONS

(1) 'Natural health resources' means naturally occurring mineral water, gas or pelloid that have properties suitable for health care purposes. 'Pelloid' means peat, mire or mud. 'Mineral water for health care purposes' means naturally occurring underground water of original purity with a minimum of 1 gr/l of dissolved solid substances or a minimum of 1 gr/l of dissolved carbon dioxide or other chemical element important for health or which has a temperature at the source higher than 20°C or the radioactivity of radon in excess of 1.5 kBq/l.

(2) The source of natural mineral water is naturally occurring underground water of original purity, constant composition and properties, that from a dietetic point of view has physiological effects due to the presence of mineral substances, trace elements and other substances which make it possible to use the water as a foodstuff and to bottle¹ and which has been granted a certificate.

(3) 'Natural health spas' means a complex of health care and other related facilities used for the provision of spa treatment and care² that have been granted a status of natural health spas.

(4) 'Spa location' means an area of a municipality or municipalities³ or their part where natural health spas are located and which has been granted a status of a spa location.

BACKGROUND

Hydrotherapy is the use of natural resources, at the place of origin in support of health care. Such resources are considered to be the geothermal mineral waters (for internal or external use), derivatives of mineral waters (gas, vapours), mineral mud and climatic conditions. Therefore it is imperative, that the use of such

resources must include curative, preventive and health promoting programmes, that aim to improve the quality of life of the individual. It must also be recognized that other physical and educational methods, such as physical therapy, exercise, dietetics, medical rehabilitation and health education, should equally be associated with the use of such natural resources. The application of these resources varies according to the way they are used and is characterized as balneology, drinking therapy, inhalation therapy, radon therapy and mud therapy.

Hydrotherapy should not be regarded as an alternative to more conventional medical treatment but more of a complement to it. Its complex role therefore needs to be better understood, because of it being multifactorial. Its application in a supportive way, implies that not only the physical aspects but the social and psychological components as well are of major importance.

In many European countries, hydrotherapy is an accepted part of medical health care, complementing outpatient care and hospital treatment, particularly in the context of rehabilitation. Changing lifestyles and age structures in European populations have led to a marked increase in the use of spa therapy and the recognition of hydrotherapy as a discipline fully supported by the social security systems of many countries.

A growing number of countries with modern health care systems are paying greater attention to hydrotherapy, and in many of them it has developed into a specific specialty of medicine, with its own scientific bodies and research institutes.

In recognition of this development, WHO⁴ convened a meeting to consider whether the specialty of hydrotherapy could contribute to better health in old age and to the maintenance of health in middle age. Among their final conclusions it was proposed that '..... it seems essential to identify the indications and contraindications for the use and efficiency of hydrotherapy'.

CURRENT STATUS OF SCIENTIFIC KNOWLEDGE

What remains universally true is the ignorance associated with potential healing powers of the naturally occurring sources. The domain is scientifically foggy.

On the one hand it can be said that the only fact scientifically accepted today about the therapeutic properties of the natural sources is that there is no fact scientifically accepted. There is a particular lack of epidemiological studies similar to those existing in many other clinical areas of medicine.

On the other hand an ever increasing part of the population uses these facilities. When questioning resort owners, proponents and especially hot spring users, vague opinions and unsubstantiated facts seem to be prevalent, although some of them are contrary to established scientific facts. It is significant, however, that there seems to be a clear preference for hydrotherapy among its many users as an alternative or complement to the more scientific and technical facilities provided by hospitals. There are many people who make use of these natural sources continuously. Is it just their imagination that makes them visit hot springs again and again since time immemorial? Or is there something more pragmatic?

THE PROJECT HYDRIADES

According to the Law 3498/2006⁵ of the Greek Parliament for the promotion of health tourism the natural health spas must be validated for the health properties of their natural sources.

A document specifying the chemical composition, physical, microbiological and radiological characteristics of the mineral water, gas or peloid must be submitted. Furthermore, the opinion on the exploitation of the source for health care purposes has to have a medical part that should be prepared by a physician, a specialist in physiatry, balneology or medical rehabilitation or in the area related to the exploitation of the source for health care purposes⁶.

Under these circumstances the Hellenic Association of Municipalities with Curative Springs signed a contract with the Research Committee of the Aristotle University of Thessaloniki, Greece, to conduct a research programme titled: *'Study for the documentation of the biological and therapeutic properties and use of the thermomineral waters'*. Eventually, a study group named *'Group for Medical Studies of Thermomineral Waters Auth'* was formed. This group consists of members of the Medical School, and other Departments of the university, physicians from the National Health System and a team for coordination

and technical support. The project is coordinated by M Tsalighopoulos, Medical School Auth and M Mitrakas, Department of Chemical Engineers Auth. The project lasts 16 months from March 2008 to June 2009 and the budget is 100000 Euros.

The aim of the project according to the contract is: (1) the study of biological and therapeutic parameters of the natural health sources, (2) the identification of the indications and contraindications of hydrotherapy and (3) the construction of a continuously updated data base.

However, it was considered imperative to pose further aims besides the ones set by the contract. These are: (1) to publish a book on hydrotherapy, (2) to incorporate hydrotherapy in the curriculum of the medical school, (3) to develop a website (4) to affiliate with the International Federation of Balneology and Climatology (FITEC), (5) to develop a questionnaire in order to gather data from the hot spring users, (6) to develop experimental protocols for further research and (7) to disseminate the programme and its results.

The existence of recognized spas in Greece, used by a great number of people is a fact. It is worth our while to scientifically approach their value and enhance their utilization, by exploiting the objective facts and other countries' experience.

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Υδροθεραπεία (το πρόγραμμα Υδριάδες)

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ΠΕΡΙΛΗΨΗ: Οι φυσικοί πόροι χρησιμοποιούνται για την διατήρηση της υγείας. Σύμφωνα με το Νόμο 3498/2006 οι φυσικοί πόροι πρέπει να αναγνωριστούν για τις θεραπευτικές τους ιδιότητες. Ο Σύνδεσμος Δήμων και Κοινοτήτων Ιαματικών Πηγών Ελλάδας σύναψε προγραμματική σύμβαση με την Επιτροπή Ερευνών του ΑΠΘ για τη διενέργεια του ερευνητικού έργου ‘Μελέτη παραμέτρων για την πιστοποίηση των θεραπευτικών ιδιοτήτων των θερμομεταλλικών νερών’. Οι κύριοι στόχοι του προγράμματος είναι: (1) η μελέτη βιολογικών και ιατρικών παραμέτρων των φυσικών πόρων, (2) ο καθορισμός των ενδείξεων και αντενδείξεων της υδροθεραπείας. Επιπρόσθετα τέθηκαν και άλλοι στόχοι, εκτός από τους κύριους.

Λέξεις Κλειδιά: Hydrotherapy, Balneology, Mineral water, Natural resources, Natural health spas.

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