

# Balneotherapy: a community approach for the management of chronic rheumatic disease

La Balneoterapia como estrategia comunitaria en el abordaje de la enfermedad crónica de origen reumático

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The high incidence and prevalence of rheumatic conditions such as arthrosis has been, in a way, caused by the active ageing of the current population<sup>1</sup>. Arthrosis is the second pathology with more impact on the health-related quality of life (HRQOL) and the third on functionality of Spanish population. Recently, the study of ArtRoCad<sup>2</sup> allowed to quantify the resources allocated to the management of this condition in the Spanish National Health Service. A total of 1.017 patients were visited and they made 6.495 visits to different health professional in 6 months requesting more than 2.400 tests. This data led to estimate that arthrosis is one of the pathologies that consume more resources in the health system.

Therefore, an updated community approach which includes planning and health promotion is necessary. Balneotherapy must play an important role in the management of chronic rheumatic diseases.

The efficiency of balneotherapy on chronic rheumatic conditions has been always supported by research gained from its use in old ages. However, despite its long history and popularity, there still are difficulties to distinguish balneotherapy, hydrotherapy and spa treatments as different treatment approaches<sup>3</sup>. The difficulties to differentiate these approaches, the lack of blinded studies and the leisure image attached to them has made the acknowledgement of their effects based on the scientific evidence difficult. This has caused frustration and rejection on many health professionals who have instead preferred other evidence based treatment techniques in their treatment approach of chronic rheumatic diseases such as arthrosis.

## REFERENCE STANDARD

Espejo L. Balneotherapy: a community approach for the management of chronic rheumatic disease. *Anal Hidrol Med*, 2012, Vol. 5, Núm. 2, 103-105.

Currently, many studies have analysed and compared the effectiveness of balneotherapy with other techniques, as well as with short and medium term intervention programmes. Among them, the effects of thermal water and mud-pack therapy have been compared with the drug therapy and other physical rehabilitation techniques like thermotherapy, physical exercise or electrotherapy, showing improvements on perceived pain, functional capacity and quality of life<sup>4-6</sup>. Others have observed changes in biochemical and molecular mechanisms which are responsible for the symptoms of rheumatology conditions. These changes include the decrease of tumor necrosis factor levels (TNF- $\alpha$ ), interleukins (IL-1 $\beta$ , IL-1, IL-6), prostaglandins (PGE2) and leukotriene (LTB4). Also an increase in the synthesis of noradrenalin, cortisol, beta endorphins and growth factor has been quantified as well as the stimulation of chondrocyte metabolism achieving protective effects of the articular cartilage<sup>7</sup>, among others.

Despite these results, the effectiveness of balneotherapy is still controversial. This can be observed in the heterogeneity of the existing criteria as numerous clinical guidelines recommend balneotherapy as an effective alternative therapy but the studies establish evidence based practice treatment approaches that do not consider this type of intervention.

In our opinion, one of the possible reasons of the progress in balneotherapy research is the lack of specific training and research in the field of medical hydrology. This coincides with the conclusions obtained by Harzy et al<sup>8</sup> in their systematic review on the lack of studies focused on the short and long term effects of this field.

Even considering the economically challenging situation, which we are currently facing, community health services for people in dependence situations and the promotion of independence is still a challenge in developed countries. The programmes of social thermalism supported by the local administration and the IMSERSO (Social Services and Elders Institute) that are offered in different Spanish regions are a sample of this.

This and the excellent time that research in medical hydrology and balneotherapy are experiencing, which has been demonstrated in the recent 38<sup>th</sup> *ISMH World Congress* celebrated in Lanjarón (Granada, Spain), place this discipline in a crucial moment to highlight the role that we consider it must play as a cost-effective strategy in the management approach to chronic rheumatic diseases.

Hydrology continue researching!

## REFERENCES

1. Encuesta Nacional de Salud (ENS 2006). Instituto Nacional de Estadística. Ministerio de Sanidad y Política Social.
2. Batlle-Gualda E, Carmona L, Gavrilá D, García EI, Ruiz R, Carbonell J. Implementación y características de la población del estudio ArtRoCad, una

- aproximación al consumo de recursos y repercusión socioeconómica de la artrosis de rodilla y cadera en atención primaria. *Reumatol Clín.* 2006; 2(5):224-34.
3. Bender T, Karagülle Z, Bálint GP, Gutenbrunner C, Bálint PV, Sukenik S. Hydrotherapy, balneotherapy, and spa treatment in pain management. *Rheumatol Int.* 2005; 25:220-4.
  4. Fioravanti A, Cantarini L, Guidelli GM, Galeazzi M. Mechanisms of action of spa therapies in rheumatic disease what scientific evidence is there? *Rheumatol Int.* 2011;31:1-8.
  5. Fioravanti A, Iacoponi F, Bellisai B, Cantarini L, Galeazzi M. Short- and long-term effects of spa therapy in knee osteoarthritis. *Am J Phys Med Rehabil* 2010; 89(2):125-32.
  6. Fioravanti A, Giannitti C, Bellisai B, Iacoponi F, Galeazzi M. Efficacy of balneotherapy on pain, function and quality of life in patients with osteoarthritis of the knee. *Int J Biometeorol.* 2012; 56(4):583-90.
  7. Bellometti S, Tassoni T, Gregotti C, Richelmi P. Mud pack treatment of osteoarthritis patients: Changes in serum levels of cartilage disease markers. *Gazz Med Ital.* 2008;167(5): 205-12.
  8. Harzy T, Ghani N, Akasbi N, Bono W, Nejjari CH. Short- and long-term therapeutic effects of thermal mineral waters in knee osteoarthritis: a systematic review of randomized controlled trials. *Clin Rheumatol.* 2009; 28:501-07.