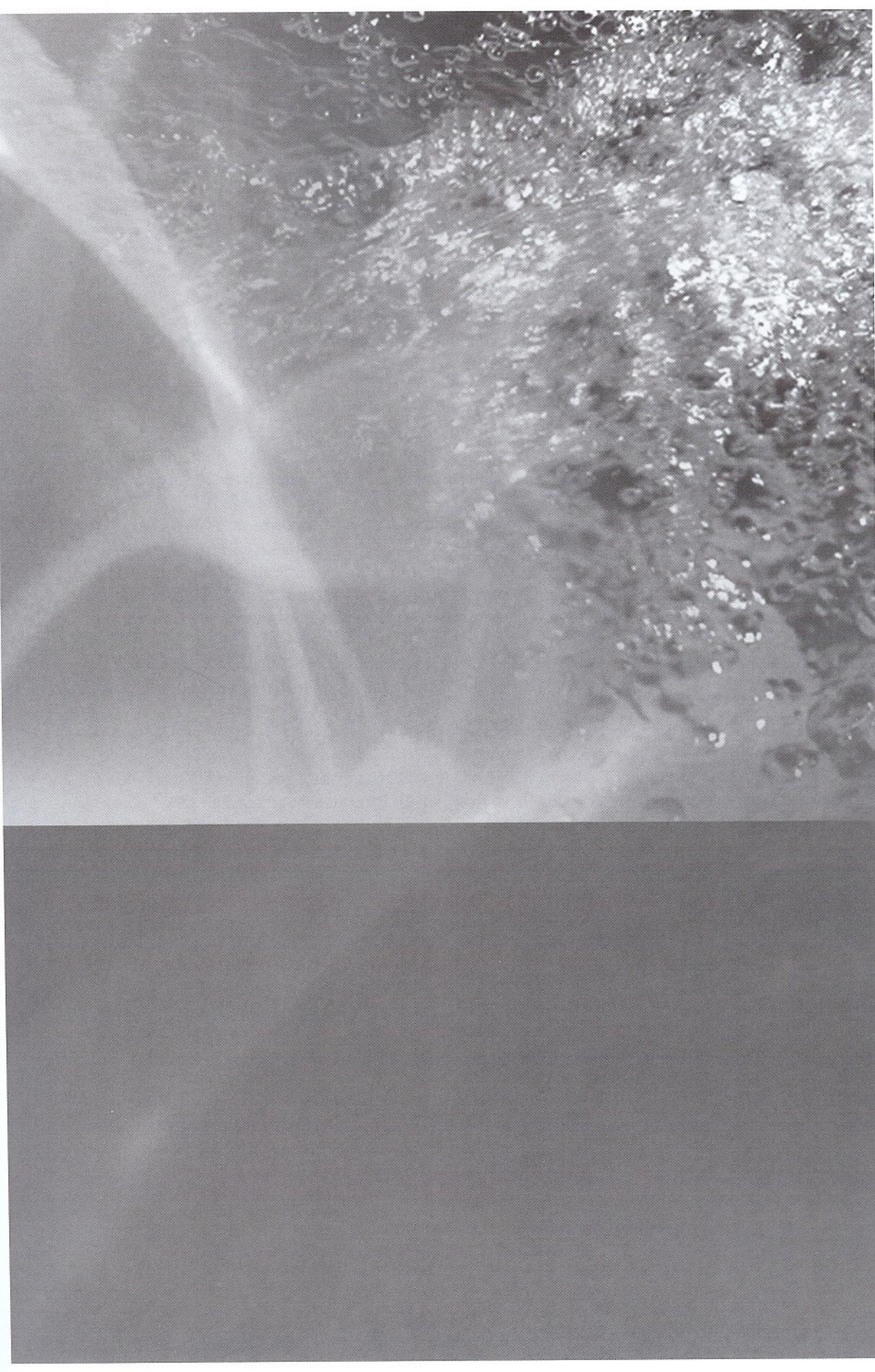


# 36<sup>th</sup> Congress

of the International Society  
of Medical Hydrology  
& Climatology

Abstracts Book



# Abstracts of Oral Presentations

## CONCLUSIONS:

The erect position and bipedal gait determine that, under the biomechanical point of view, the man need to have a swinging vertical axis, elastic, resilient and resistant to compressions, flexions and twists.

Through this axis, the body weight is discharged on the feet and, physiologically, a relative harmony, symmetry, equivalent surfaces of discharges on the ground and projections of mass center on elastic zones of the feet are needed to obtain the desirable balance on both sides of the body.

## OP06

### MEDICAL CRENOTHERAPY IN THE MANAGEMENT OF SEROUS OTITIS MEDIA AND CHRONIC SINUSITIS

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The auto-inflation through the eustachian tube (tubotympanic auto-inflation) and the Proetz procedure are two methods for treating serous otitis media and chronic sinusitis.

We assess the benefit of those procedures using sulphur air and sulphur water.

#### MATERIALS:

A group of children up to 5 years old with otitis media were selected and submitted to 10 treatment sessions of auto-inflation using an Itard sond which was introduced during 3 minutes in each nasal cavity, carrying air till the middle ear with pressure control.

Identically, a group of only adults with chronic sinusitis were concerned in this study, to perform 10 treatment sessions, using an air blower with pressure control-gauge, to promote sinus washing and drainage of secretions.

#### RESULTS:

The majority of the children with serous otitis media obtained immediate recover after 10 treatment sessions, with subjective restore of hearing and objective normal aspect of the tympanic membrane. The adults with chronic sinusites, after 10 treatment sessions, revealed in the majority of the cases, immediate pain/headache relief and absence of purulent rhinorrhoea.

A CT scan control of the paranasal sinuses one month after, showed disappearance of ethmoidal and sphenoidal opacifications in regard of previous sinus CT.

#### CONCLUSIONS:

The management of serous otitis media using sulphur air by means of auto-inflation and chronic sinusitis with sulphur water by means of Proetz procedures, shows to be an effective solution for those pathologies, with no significant risks and avoiding further needs of surgical treatment.

## OP07

### THE NATURAL WATER FROM THE THERMAL OF CALDAS-DA-FELGUEIRA IN THE TREATMENT FOR BRONCHIAL ASTHMA

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#### PURPOSE:

Caldas-da-Felgueira are situated in the district of Viseu, on the right margin of the Mondego river. The water, from a chemical point of view, is sulphurous primitive, sodium bicarbonated with an alkaline reaction and a high reducing power.

With this study we are interested in perceiving the pattern of a population's sample that suffers from bronchial asthma's acuteness (chronic disease of the lower respiratory tract) and searches for the effect of the natural mineral water from thermal as a cure.

The sample is composed of a total of forty six individuals, attended by the consultation services of the thermal of Caldas-da-Felgueira. It was elaborated a simple and direct questionnaire of short answer containing questions about health and the habits of each individual so that we may find a pattern. This study aims to characterize the type of habitation, of pavement and others essential items.

The distribution of the symptoms along the year was studied and the correlations were evaluated. In the general, the study allows to set an eligible pattern of patients that search for the effect of the mineral and natural water from the thermal as a cure for the acuteness from bronchial asthma.

The study also shows that the changes in the atmospheric conditions are determinant in the acuteness of bronchial asthma and the habitation type should be valued by the patients.

The individuals to the sample consider too much important for their health the treatment in the thermal.

## OP08

### HALOTHERAPY IN HEALTH RESORT MEDICINE

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The paper presents the method of halotherapy which models the microclimate parameters of salt speleoclinics. It gives historical data on the method development, principles and advantages of halotherapy by means of controlled microclimate. The influence of the main curing factor — the dry fine-grained sodium chloride aerosol, and pathophysiological basis of curing effect of the halotherapy method are under review in the paper. The paper describes the method of controlled halotherapy and its technology, that is the halocomplex

equipped with a controlled halogenerator. Scientific grounds for action mechanism, proven clinical efficiency verified by research on standards of evidence-based medicine and practical application in various fields of public health determine broad prospect of the method in rehabilitation, sanatoria and health resorts and preventive medicine. Data on clinical efficacy and the grounds for the method usage in the recovering treatment for bronchopulmonary and otorhinolaryngologic pathologies, skin diseases and combined cardiovascular pathology, as well as preventive measures against respiratory diseases are cited. Efficacy of halotherapy in treatment and recovery of children is under review. Foundations for perspective usage of halotherapy in all kinds of medical and recovering establishments are given.

OP09

**EFFECT OF THERMONEUTRAL WHOLE BODY IMMERSION ON PSYCHIC FUNCTIONS IN PATIENTS WITH DEPRESSIVE OR/AND ANXIETY DISORDERS**

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**PURPOSE:**

Among methods of complementary treatment of psychosomatic diseases, the importance of hydrotherapy increases in the last years.

Although there are some indications for the antidepressive and anxiolytic action of balneotherapy, there have been no controlled trials about effects on psychic functions by application of thermoneutral water. Therefore, this study focused on changes in psychic functions induced by thermoneutral whole body immersion in patients with depressive or/and anxiety disorders.

**MATERIALS:**

50 patients, 25 with depressive, 11 with anxiety and 14 with combined disorder, were included in the study. The intraindividual controlled, prospective trial consisted of one bath session and one control session (resting period) lasting for 80 min each at a 7 days interval.

As instruments the German based "Eigenschaftswörterliste" (catalogue of adjectives; Janke & Debus 1971) describing quantitatively patients' current feelings and the State-Trait Anxiety Inventory, which covers patients' present anxiety (Spielberger, Gorsuch and Lushene 1970) were used.

The activity of M. splenius capitis, M. trapezius, M. erector spinae and M. rectus abdominis were measured by surface-EMG.

**RESULTS:**

Comparing bath and control sessions, a mood-enhancing effect during bathing, as well as changes in almost all dimensions of the "catalogue of adjectives" were noted: increase of arousal [p=0.022], extroversion [p=0.007], self-assurance [p=0.000], mood [p=0.000] and sensitivity [p=0.021]; decrease of aggravation [p=0.010], anxiety [p=0,000] and depression [p=0,003]; non-arousal [p=0,055], fatigue [p=0,293], drowsiness [p=0,319], introversion [p=0,096], infuriation [p=0,346] and dreaminess [p=0,735] did not change significantly.

The main outcome parameters were significantly reduced too [depression [p=0,003] (Eigenschaftswouml; rterliste), anxiety [p=0.000] (State Anxiety Inventory)].

Results of EMG-measurement (standing position) after bathing showed lower muscleactivities in M. splenius capitis [p=0,001], M. trapezius [p=0,004] and M. erector spinae [p=0,005] compared to the controls.

**CONCLUSIONS:**

Whole body immersion is a suitable supplement, treating patients with depressive or/and anxiety disorders. Whole body immersion features a remarkable, multidimensional mood-enhancing, antidepressive and anxiolytic effect. Due to the fact that this intervention is cheap, easy to apply and requires no extensive training for the medical staff, this treatment modality should be more often used at home, in hospital and ambulance.

OP10

**SPA THERAPY IN ANXIETY DISORDER IN A 8 WEEK COMPARATIVE AND RANDOMIZED MULTICENTRE STUDY ON 237 PATI**

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<sup>(15)</sup> Les Thermes de Saujon

**PURPOSE:**

There appears from the preliminary studies using spa therapy-like balneotherapy that it has been remarkably efficient and tolerant in treating generalized anxiety. We have carried out a scientific study in accordance with international assessment criteria so as to validate the hypothesis

**MATERIALS:**

We compared spa therapy-like balneotherapy treatment with Paroxetine by means of a multicentre, comparative, randomized 8-week study. At least 200 patients fitting the diagnosed criteria of generalized anxiety disorder (DSM IV) were to be recruited. The assessments were run with the Hamilton Anxiety scale (HAM-A). They were carried out by an independent, fully-trained and specialized assessor. The total score on the HAM-A scale (Hamilton Rating Scale for