Health Tourism and Medical Treatment: two parts in Health Resorts

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Health Resorts?

Which kind of principles are included?

Centres using methods to re-activate self-healing power by

- Salugenetic and Hygiogenetic concepts of treatment
- Personally patient-oriented concepts
- Use of endogenous power stimulation and stabilizing forms of treatment
- Activation of the patient's own responsibility for his health
- Use of a pleasant and culturally encouraging environment close to nature to stimulate the therapeutic acceptance.
Therapeutic Principles

1. **stimulatio**
   - Naturopathic, reactivate of self healing power

2. **substitutio**
   - Substitution for metabolic malfunctions

3. **directio**
   - Pharmacotherapy

4. **excludio**
   - Surgery

hygiogenetic oriented "self healing"

pathogenetic oriented "artificial healing"
Types of Health Resorts

- Spas using natural spring water or natural peloids
- Wellness centres using equipments for pleasure and fun
- Climatic centres using healthy climate in the mountains
- Thalasso centres using the natural remedies of the sea
- Kneipp centres using the 5 columns of “Sebastian Kneipp”
Water as an elixir of life

- Dietetic baths
  - cleanse
  - refresh
  - give pleasure
  - enjoy
  - take healthy
  - compose
  - palliative effect
  - healing effect

- Medical baths
Water is good for treatment and for health

- It can be used in prevention (Dietetic)
  - By drinking as food
  - By bathing as cosmetic
- It can be used in medical treatment
  - By bathing about its physical and pharmacological effects mediated by the skin
  - By drinking about its stimulating effect to the inner organs
  - By inhaling about its effect on the respiratory systems
Water is the most used medicament

- Everybody is using it.
- Everybody believes its effectiveness.
- The medical experience is bigger than in any other drug.
- The private share in costs is higher than in any other medicament.
- It is the cheapest medicament.
- No other medicament was described so many times by artists than water.
Effect by immersion

Air bath

Half bath

Full bath

About 1000 ml of blood flows into the thorax
Effect of cold bath on Epinephrine

nach Bühring

Body temperature

Water temperature

Erwärmung bis 1 °C unter Rektaltemperatur

Epinephrine

Nephrine

Before

0 10 20 30 40 50 60 70 min.
Effect of cold bathing

- Thermic Stimuli for Training of regulation of blood flow
  - Functional disturbance of blood flow
  - Phlebopathy
  - Cardio vascular diseases
- Thermic Stimuli for Training of inurity
  - Infect prophylaxis
Effect of changing cold-hot bathing

- Thermic Stimuli for Training of vegetative-hormonal Functions
  - Convalescence
  - Psycho-vegetative Syndrome
  - Cardiovascular regulation disturbance
  - Metabolic disturbance
Effect of hot bath on blood circulation by Barcroft

Blood circulation in muscles

Water temperature

%
Effect of hot bathing

- Muscle relaxation
- Increase of extensibility the structures of connective tissue
- Analgesic
- Anti Inflammatory by Overheating
  - Rheumatic diseases
  - chronic-inflammatory diseases of the urogenital system
  - Post acute after trauma conditions and operations on locomotor system
Chemical bath effects

- Activation of endogenous inflammatory resistance
- Decrease of increased pain sensitivity
- Normalisation of blood pressure
Rheuma baths

- Sulphur
- Radon
- Brine
- Peloids
Skin baths

- Oak bark
- Camomile, yarrow
- Shave grass
- Plant oils
- Sulphur
Permeability of skin for solutions in water

Water

μl solution/cm²/h

1000

100

10

1

0.1

0.01

0.001

0.0001

CO₂

Radon

H₂S

Water

Sodium

Potassium

Chloride

Calcium

Caesium

Cadmium

Ferrum III

Chromium III

Ferrum II

Strontium

Sulfate

Jodide

Arsenic

Bromide

Pertechnetate

Cobalt

Silver

Phenylmercuryborate

Campher

Propanol

Ethanol

Methanol

Octanol

Heptanol

Camphen

Methylsalicylat

Estron

Progesteron

Testosteron

DMSO

Acetylsalicylic acid

Heparin

Corticoesteron

Indomethacine

Salicylic acid

Cortison

Hydrocortison

Selenite

Radon

CO₂
Diseases of the locomotoric system

The following treatments are effective:

- Sulphur baths (only in bath tubs or showers)
- Radon baths (only in bath tubs or in gas containers)
- Brine baths
- Carbon dioxide baths (only bath tubs or in gas containers)
- Hot water baths
Therapeutic use of Sulphur Baths in rheumatology

- Degenerative diseases of joints
- Extra articular rheumatism
- Rheumatoid arthritis
- Post traumatic lesions
- Postoperative therapies
Therapeutic use of Radon baths

- Rheumatoid Arthritis (not acute stadium)
- Ankylosing spondylitis
- Treatment of pain by Radiculitis, Neuritis, Neuralgia
- Hypertension Stadium I und II WHO
- Sklerodermie
- Osteoporosis
Therapeutic use of Carbon Dioxide baths

- Disturbance of micro circulation in the skin
- Trophic Ulcera of the skin, venues Ulcera
- Decubitus
- Peripheral arterial occlusive disease in any stadium
- Functional arterial disturbance of vascularity
General rules for effective bathing

- **Chemical** effects of water can be used only in bath tubs
  - No disinfection
  - Concentration in bath tub
    - $H_2S > 10 \text{ mg/l}$
    - Radon $> 1 \text{ kBq/l}$
    - $CO_2 > 1 \text{ g/l}$
    - Brine 10-150 g/l (in case of indication)

- **Physical** effects of water can be uses in pools
  - With disinfections (chemical substances are destroyed)
  - Temperature $>30 \text{ °C}$ (in case of application)
Basic Infrastructures of Health Resorts (I)

- Natural resources and remedies certificated for treatment
- High quality standard of air and healthy climate
- Resort with special equipment depending on indications for bathing, drinking, inhaling, gymnastics and physical therapy
- Favourable therapeutic environment with parks and walking areas
- Areas for fitness, sports, and relaxing
- Specialized physicians and medical teams
Basic Infrastructures of Health Resorts (II)

- Special hotels or pensions with dietetic measures and maintenance for patients
- Cultural events
- Health education centre
- Health promoting urbanisation
- Equipment of medical care and first aid
- High quality standard of hygienic equipment
"Kur" and Rehabilitation (Definitions)

- "Kur" (cure of treatment, course) is a special type of medical treatment in Health Resorts with natural remedies during a period of 3-6 weeks. It mainly use the reactivation of self-healing powers by stimulation and training by minimize the use of drugs.

- Prevention or Rehabilitation are the goal of treatment.
Two Functions of Health Resorts and Spas

- Health Resorts are centres in treatment of chronic diseases and to realize preventive and rehabilitative goals.
- Health Resorts are centres to get health in healthful vacations.
Importance of Health Resorts and Spas

- Therapeutic use of classical forms of prevention and rehabilitation.
- They provide economic incentives for regional health care industries and tourist markets.
- They serve as healthy ecological location for environmental protection and appreciation.
Integration of Spas and Health Resorts in the Health Care System

- Out-patient treatment by the Family Physicians
- In-patient treatment of special acute diseases in Hospitals
- In-patient or out-patient rehabilitation mainly in Spas and Health Resorts
  - of chronic diseases
  - of acute diseases, stroke, street accidents a. o. after treatment in special hospitals
- In-patient or out-patient prevention in Spas and Health Resorts
Situación y competencia térapéutica

- Sano
- Agotado
- Enfermedades crónicas
- Enfermedades agudas
- Caso de emergencia
Course of Treatment
depending on impairment, malfunctions, disability or handicap

- Out-patient treatment course
  (Patients stay in Pensions or "Kur"-Hotels)
- In-patient treatment course
  (Patients stay in Sanatoriums or Rehabilitation Clinics)
## European Spas and Health Resorts

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German Spa and Health Resort Industry

- 329 Health Resorts and Spas
- annual increment value 13.300 million $
- Work force 310,000 persons (=42.903 per person)
- 118 million overnights 1993 in 726,000 beds (=44.5%)
- 9.8 million visitors 1993 (=12 days per visitor)
- 8.2 million patients privately financed (=83.6%)
- 1.6 million patients social financed (=16.4%)
**German Spa Statistics 1993**

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<td>60</td>
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<td>Visitors</td>
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Costs of Treatment in Spas and Health Resorts

- Out-patient treatment $2000 during 3 weeks
  - insurance pays $10 per night and 90% of treatment costs

- In-patient treatment $2500 during 3 weeks
  - patients pay about $10 per day
Public Health the goal of present-day Health Resort Medicine

- Prevention is better than Therapy
- Learning to Live Healthfully
Social Taxable Rate in Germany

19.2% of income for the Retirement Insurance
(income more than $350 per month)

13.2% of income for the State Health Insurance
(income $350-3600 per month)
Health Costs in Germany

- 1969: 46.000 million$
- 1992: 286.000 million$
- Payment of the State Health Insurance: 138.400 million$
  - In-patient treatment in hospitals: 37.1 %
  - Out-patient treatments: 29.0 %
  - Administration: 6.0 %
  - Health resort and spa treatment: 2.3 %
- Payment of the Retirement Insurance: 19.300 million$
Costs of Chronic Back Pain in Germany 1994

- 1989
  2.3 million cases of back pain resulted
  43 million non-working days

- 1994
  30.000 million$ treatment costs
  for disorders of spine and back pain and
  18.000 million$ non-working salary
  total 48.000 million$
Statistics of Health Resort and Spa Treatment 1992

53 % Diseases of the locomotoric system
14 % Diseases of the circulatory system
13 % Psycho-social diseases
  5 % Metabolic diseases
  5 % Tumours
  5 % Respiratory tract diseases
  5 % others
Learning to treat chronic illness needs
- the patients with these disorders,
- efficient therapy centres,
- teachers with enough practise.
The fight against the chronic illnesses

- cannot be won only by control of the free market
- can only be won by political decisions
Research

Three levels of research goals are important:

- medical treatment effect during the course of treatment
- long-term medical and social-medical effectiveness
- difference between expense and success: the efficacy.

The following methods are suitable:

- clinical comparison
- comparison of costs before and after treatment
- comparison of non-working time
Conclusion

Chronically ill patients are dependent on the possibilities offered at the Health Resorts and Spas. But healthy tourists learn in Health Resorts too. The goal of both groups in treatment and prevention is the same:

“To die young, but as late as possible”.

End of Slides