AQUATIC THERAPY

Edina Sziráki - PT
Hosp. Brothers of St. Jonn’s of God, Budapest, II. Rheumatolog. depart.
Aquatic Therapy

- Halliwick
  and Water Specific Therapy (WST)
- The Bad Ragaz Ring Method
- Relaxation in water (Watsu, Ai Chi)
- Aerobic Conditioning
Aquatherapy vs. Subaquatic exercise

- According to the patient's actual health and functional status, diagnosis and needs
- Specific treatment and functional goals
- Individual treatment
- Prescription

- Improve the general condition
- Usually in group
- Prescription does not necessarily
Halliwick - history

- 1949 James McMillan, new method in teaching swimm
- 1950 London, Halliwick School for Crippled Girls - positive effects both physically and mentally
- 1952 association of Swimming Therapy
- Following the very good outcomes, water specific therapy started, 1963 annual courses in Bad Raz
- 1986 Conference Halliwick
- 1994 International Halliwick Assoc. and Found.
The Ten-Point-Programme
(motor learning program)

I. Phase – „getting use the water”

1. Mental Adjustment
   - adaptation to mechanical effect
   - BREATH CONTROL (facio-oral stim.)
   - stimulate disassociated head balance
   - movement, rhythm in water, the hairs, eyes, ears get wet
II. Phase – Balance Control

The patient must learn a centralised balance control in every direction, during movement, going closed kinetic chain to open chains

- Sagittal rot. (lat. flex., facilitate righting reactions, lengthening of the trunk)
- Transversal rot. (flex-ext, important for safety!, strengthen abd, facilitate symmetry, extension)
- Longitudinal rot. (around the long. axis)
- Combined rot. (preparation for functional movement, 3D)
III. Phase – controlled movement

- Mental Inversion
- Balance in Stillness
- Turbulent gliding
IV. Phase – movement, swimming

- Simple Progression
  with both hands, next to the body, in fishtail or sculling actions
- Basic Halliwick-movement
  arm movement, more ROM, the stroke adapted to the patient’s possibilities
The Bad Ragaz Ring Method (BRRM)

- For hundreds of years the thermal waters of Bad Ragaz served only the passive form of hydrotherapy
- 1930 active hydrotherapy for peripheral lesions, decreased range of motion
- 1955 Wildbad (D) stabilization, using rings, 2D
- 1965 according Kabat, Knott, B. Davies incorporated PNF
- Developed the New Bad Ragaz Method (Egger, McMillan)
- 1990 Egger The New Bad Ragaz Method With Ring
**BRRM**

- Individual, special method of treatment
- Based on biomechanical (3D, diagonal motion, temperature), fluidmechanics, neurophysiology (proprioceptive stimulation facilitates, overflow)
- Combination of relaxation, stabilization, progressive resistance
- Using flotation aids, rings which provide some safety and help to stabilise the position
- Has great results in the field of neurology, traumatology, rehabilitation, rheumatology
Indication of BRRM

- Low back pain, herniated disc surg.
- Osteoarthritis
- Joint replacement
- Tendon surgery, fractures
- Muscle diseases
- Hemiplegia, para-tetraplegia
- Ataxia, dystonia, hyperkinetic syndrome
Goals of treatment

- Decrease pain
- Strengthening, muscle re-education
- Relaxation
- Spinal traction and elongation
- Reduction of muscular tone
- Increase of ROM
- Improve trunk stability, functional abilities, coordinations, aerob capacity
**BRRM compared to PNF**

- BRRM has no stretch reflex, less different technics
- Resistance provided by hydromechanics and therapist
- Movement not only the distal, but the proximal parts
Application of BRRM

- The therapist immersed max. to T9, and is the fix point
- The patient is supine
- The treatment time is 10-15 min, later on 30 min
- The amount of resistance can be controlled by the speed of the movement
- Progression of exercise: ROM, lever arm, amplitude, different directions, shape, equipments
Relaxation in water

- Watsu®
- Jahara
- Waterdance
- Floating
- Aquamouvance (CAN)
- Aquasage (NL)
- Ai Chi
- Halliwick
Relaxation – decrease tension

- Physical tension
- Cope with mental tension
- Influence the autonomous system
- Treat functional problems with – relaxation
  - moving consiously
  - stretching
Watsu®

- Zen - shiatsu (Harold Dull)
- Shiatsu-massage
- Stretching the meridians
- Being together
- Goal: not to have goals
Ai Chi

- Combination of deep breathing and slow broad movements
- Originated by Jun Kunno, Yokohama
- Water depth at shoulder level, temp. 30-35º
- Work to the point of tension, without pain
- Benefits: ROM, relax, breath and mental effects
Summary

The main therapeutic goal of the specific treatments is improving and maintain the function. For that reason, they are concentrate on head—and trunk control, equillibrum, stability, muscle balance, range of motion and decrease the pain.