

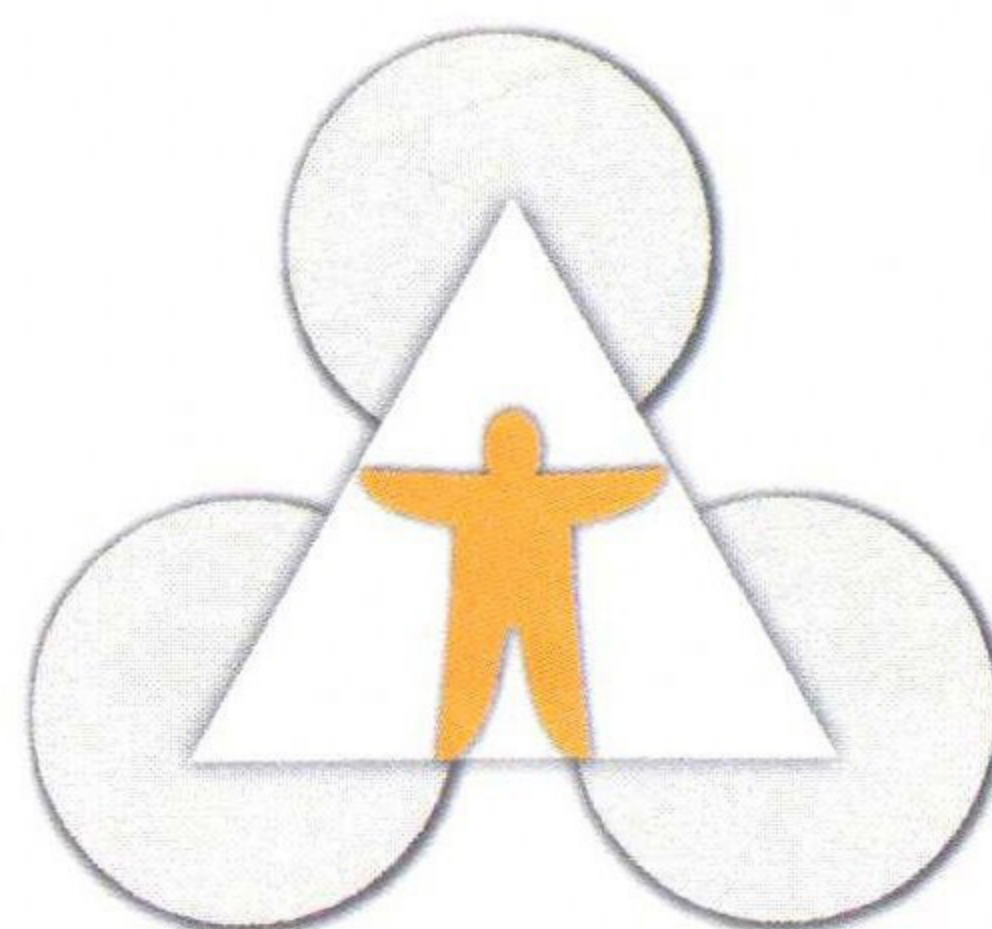
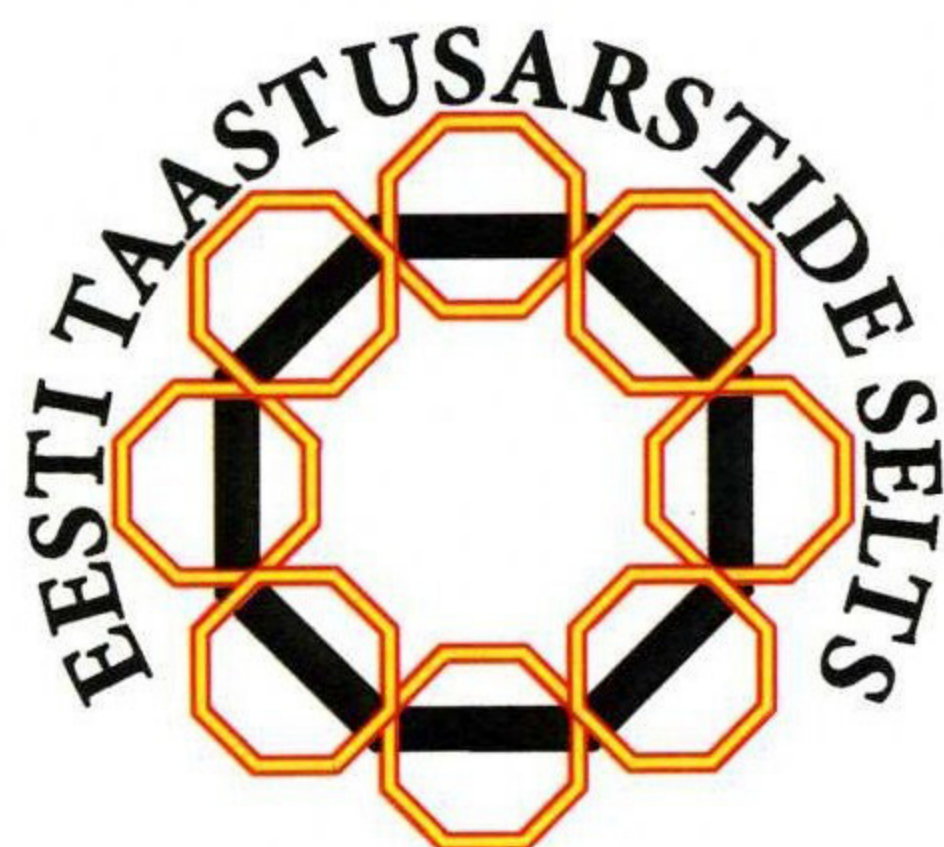


BAR 2010

7th Congress of Baltic Association for Rehabilitation

September 17–18, 2010

Final Programme
Abstracts



BAR 2010

7th Congress of Baltic Association for Rehabilitation

September 17–18, 2010

**LifeStyle and Quality of Life in Rehabilitation
Rehabilitation of Internal diseases and traumas**

General Information

Congress President

Varje-Riin Tuulik Leisi

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Priit Eelmäe

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Anita Vetra

Alvydas Juocevicius

Tiina Tammik

Dagmar Narusson

Priit Eelmäe

Conference Venue

Reval Hotel Olümpia

Liivalaia 33, 10 1118 Tallinn, Estonia

info.olumpia.tallinn@radissonblu.com

Social Programme

**17.09.2010 20.00 Conference dinner at the House of Brotherhood of the Blackheads
(Pikk Str 26, Tallinn)**

Topics

- Disability and Quality of Life
- Rehabilitation services in Baltic states
- Lifestyle and long-term illness (metabolic syndrome, diabetes, overweight etc.)
- Dysphagia
- Trauma rehabilitation (amputations, burns, PTSD etc)
- Polyneuropathy
- Bladder and bowel problems
- Social rehabilitation programs
- Telerehabilitation
- New technologies in rehabilitation
- Ergonomics
- Clinical gait analysis
- Functional measurement in rehabilitation

BAR 2010 information:

<http://www.etas.ee/bar10en>

Kinesotherapy of locomotor dysfunctions using the neuro-orthopedic pneumosuit Atlant

Kochuneva, O. Ya, Zotov, V. A.

Central clinical rehabilitation hospital and Federal medicobiological agency rehabilitation medicine department, CJSC "NPO "Dynaforce", Moscow, Russia

Topicality: The adoption of innovative medical technologies is a priority for rehabilitation of neuro-orthopedic patients. Using stress activates the costume's proprioceptive stimulation, causing a powerful stream of pulses in the motor cortex, increases the reaction α - γ -motor-neuron system that provides neurophysiological conditions for the retention of the position, with subsequent rearrangement of supraspinal motor control systems at a closer to normal physiological state. A special feature of the new Rehabilitation pressure suit (PIIK) "Atlant" is multilevel neurophysiological and orthopedic effects caused by a combination of widespread efforts at reducing mechanism controlled muscles and create additional gravitational loads during torso and extremities pneumocorsetting, and the head fixation in the correct physiological position.

Objective: To apply the Rehabilitation Pneumosuite "Atlant" in the complex rehabilitation of patients with neurological and orthopedic problems.

Materials and Methods: 723 procedures with the kinesitherapy Rehabilitation Pneumosuit "Atlant" were held for 68 patients with various motor disorders including: Following traumatic brain injury (10), cerebral blood flow (24), traumatic spinal cord disease (8), the effects of hernia ectomy intervertebral discs of the lumbar-sacral spine (13), after hip replacement (9).

The course consisted of 8–16 rehabilitation exercise training duration "operational phase" of 15 to 40 minutes

Results: Positive changes include increases in motor activity (94,4%) and postural stability (83,3%), regression of muscular-tonic disorders (77,7%). The positive dynamics in the form of reducing the asymmetry of the biopotential amplitude of the extensor muscles of the back at the end of treatment, indicating that the restoration of muscle-tonic reactions while maintaining a vertical posture. The reduction of bearing surface, and fluctuations in the overall pressure center in the sagittal and frontal planes after treatment by an average of 37% were observed.

Conclusion. The suit "Atlant" provides neurophysiological conditions for low power vertical retaining his position, the formation of physiologically correct curvature of the spine, improvement in functional status neuromuscular apparatus, the correction of incorrectly performed movements, reduction of spasticity, the beginning of developing and maintaining the regenerating pattern distance.

Developed instructional techniques, including the original, can significantly optimize the integrated program of rehabilitation and to improve the rehabilitation prognosis of neuro-orthopedic patients.