

sical (Spearman's Rho .355; sign. 2 tailed .040) and secondary indirect physical (Spearman's Rho .365; sign. 2 tailed .034) sexual dysfunction but not with tertiary psychosocial dysfunctions. **Conclusion.** LUTS may occur in MS even in the absence of severe disability. Sexual and vesicourethral dysfunctions have a significant impact in the quality of life of MS patients. The positive correlation between the BDI and the anxiety scale of CBA scores with the Qualiveen questionnaire demonstrate the relationship between these symptoms and the quality of life of MS patients.

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Soft-tissue surgery and Botulinum toxin treatment in hemiplegic subjects with lower limb spasticity.

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Introduction. Lower limb spasticity treatment have different possibility, including Botulinum Toxin Treatment (Btx)^[1] and soft tissue surgery (Sts)^[2]. In this work we evaluated the frequency where with two treatments are associated. **Materials and methods.** 112 Hemiplegic patients, underwent a Sts in our Hospital from 2003 to 2008, were included. All patients were able to walk ten meter at least and the aim of the treatments was gait improvement. Evaluation protocol, utilized both Btx and Sts was: a) clinical and neurological evaluation b) observational gait analysis c) dynamic polyelectromyography (pEMG) d) Cinematic analysis by optoelectronic system (only in selected cases). **Results.** 65 patients out of 112 (group 1: 58% of the total) made only Sts whereas 47 (group 2: 42% of the total) combined surgical operation with Btx treatments. Considering only group 2, 49% of them made btx treatments only before surgery, 27% of them utilized Btx treatment on non-operated muscles group and 24% of them after Sts needed of Btx treatment in the same operated muscles group. However in this last case interval between two Btx treatments grew after surgery treatment. **Conclusion.** Our work confirms that Sts can reduce Btx treatments in hemiplegic patients with lower limb spasticity. However, in some selected cases, Btx treatment after operation can be useful to maintain improvement obtained with surgery.

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Gait Analysis to assess Kinesio Taping Method® efficacy in Neurological Patients

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Introduction. Kinesio Taping method (KTm) is widely utilized in sport medicine^[1] and recently also in neurological patients^[2], but without scientific evidence about its efficacy. This patients often present an irregular Rectus Femoral (RF) recruitment during gait, with consequent deficit in stability and gait efficacy. In this study we utilized gait analysis to determine if KTm can improve muscular recruitment, and consequently gait, in neurological patients. **Materials and methods.** We recruited 10 patients (2 women and 8 men): 5 with hypoactive and 5 with hyperactive RF during gait. Inclusions criteria were: a) interval from acute event greater than 6 months b) able to walk 10 meter at least c) no botulinum toxin of physiotherapy treatments during the study. We applied a Taping on RF and changed it every 3 days for two weeks. Evaluation was performed before and after application period, and consisted in: a) clinical and segmental evaluation b) dynamic polyelectromyography (pEMG) of RF c) Cinematic analysis by optoelectronic system. **Results.** We considered the maximum knee extension during stance phase and the maximum knee flexion during swing phase. From the pEMG we extrapolated some indicators to evaluate the EMG timing and the EMG area. After the KTm, 7 patients improved the knee extension and 6 patients improved knee flexion. Also in 6 patients

the EMG timing after application was more physiological than before. **Conclusion.** This preliminary study encourages us to continue research, considering more subjects and more muscle groups, and defining which patients could be suit better for KTm

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Do orthopaedic shoes improve dynamic stability of gait in patients with severe foot&ankle injuries?

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Introduction. Orthopedic Shoes (OS) are used to enhance ambulation and encourage participation in daily living activities. Despite numerous evidences of OS effectiveness, there is still a need to better characterize their effect on gait. Local Dynamic Stability (LDS) is the ability of locomotor system to maintain steady gait by accommodating small perturbations. LDS has been advocated as a clinically relevant parameter in the evaluation of mobility and the response to therapeutic interventions [1]. The objective was to assess LDS modification induced by OS in patients with foot&ankle injuries. **Materials and methods.** Thirty patients (age 44.4±11.3yr, body mass 79.8±10.7kg, height 172.8±5.8cm) with severe foot and/or ankle fractures performed four 30s walking trials with Normal Shoes (NS) and OS. A triaxial motion sensor recorded trunk accelerations at the low back level in Medio-Lateral (ML), Vertical (V) and Antero-Posterior (AP) directions. LDS was assessed by computing finite-length Lyapunov exponent (l*) [1]. **Results.** OS significantly improve gait stability in ML direction (14%): for NS l*=0.68±0.16; for OS l*=0.59±0.13 (paired t-test p=0.0001). The effect was less pronounced in V direction: for NS l*=0.70±0.14; for OS l*=0.66±0.09 (paired t-test p=0.03) and in AP direction: for NS l*=0.65±0.15; for OS l*=0.59±0.10 (paired t-test p=0.009). **Conclusion.** Complex foot & ankle fractures are often associated with a poor outcome, especially in terms of gait recovery capacity. Prescription footwear represents an important part of the treatment of after-effects. We showed that short walking test using low-cost sensor could efficiently assess footwear outcome. We observed that OS improve gait quality by increasing stability. Because poor dynamic stability is associated with a higher fall risk, this may explain one of the mechanism by which OS increase patients' confidence and comfort.

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The assessment of the prevalence rate of cerebrovascular incidents in patients having undergone Coronary Artery Bypass Graft (CABG) surgeries and complex cardiac surgeries, rehabilitated in the Cardiac Rehabilitation Department in the Cardiac Surgery Clinic of the PAM in Szczecin in the years of 2008 and 2009

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Introduction. The aim of this study was to assess the prevalence rate of strokes and transient ischemic attacks among patients subjected to cardiac operations and safety of intensive cardiac rehabilitation. **Materials and methods.** 598 patients: 165 female (28%) and 433 male (72%) operated on and subsequently rehabilitated in the Cardiac Department in the years of 2008 and 2009 were subjected to retrospective analysis. The clinical data of the patients with cerebrovascular incident diagnosis was analyzed allowing of correlation between central circulatory disorder and a kind of surgical procedure carried out. **Results.** 33 (6%) patients with clinical symptoms of cerebrovascular accident in the early postoperative period: stroke 29 (88%) and TIA 4 (12%) were identified. Among patients with such complications 12 (36%) were female and 21 (64%) were male. In early period after cardiac surgeries (up to 30 days) ischemic stroke or TIA occurred in (6%)