Plastic surgery offers a quite unique window on abrupt and permanent modifications of a human’s body schema. Its impact is comparable to amputations or other severe injuries, with the evident advantage from the experimenter’s (and patient’s) point of view that it is planned, allowing longitudinal studies and quantification of the weight and distribution of modified bodily masses (e.g., weight of the prosthesis). One potential drawback is that modifications due to (aesthetic) plastic surgery are often too little to be revealed by motor control tasks, making it difficult to measure the time course of body schema readaptation. The aim of our study is measuring the capability of the body schema to readapt to significant and abrupt changes, such as the distribution of mass centers, and in particular to assess what is the time course of such re-adaptation. For this reason, we have carried out a longitudinal study on postural modifications on a population of female patients (N = 30) who were subjected to additive or reductive plastic surgery. Posture and stabilometry evaluations were performed before surgery (T0), and after 1 months (T1), 4 months (T2), and 1 year (T3). Posture was reconstructed from spatial tracking system (Fastrack™ Polhemus) recordings. Stabilometry analysis was performed by force platform (Globus Italia). The results document a modification in posture and a significant increase in the sway area after body mass alterations. Posture and stabilometry data return to equilibrium after 1 year. Our data suggest that posture control relies on, at least in part, feedforward than only on feedback strategies.

BIOMECHANICAL MODIFICATION AND SENSE MOTOR CONTROL OF BODY POSTURE AFTER PLASTIC SURGERY.

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The flat foot can be defined as a syndrome with multiple etiopathogenesis, characterized by an altered structure of the longitudinal arch of the plantar vault with its reduction in height. The plantar arch collapse can be counteracted by strengthening the muscles involved; for many years, specific physical exercises have been proposed with this purpose in physical and rehabilitation medicine. The aim of our work was to improve the plantar arch muscles’ tone using high focal vibration therapy (300Hz) Methods. 10 children with a 4th degree flat foot (age: 8,7±2,2; height: 132±15cm; weight: 35,2±12,3Kg) underwent 10 sessions, 2days/wk, of 30 min of focused high vibratory therapy at a frequency of 300 Hz (Vissman, Italy). Before and after treatment stabilometry (StT), static and dynamic baropodometry tests were performed. Results. Evaluation of StT showed an improvement of stability, a decrease of sway area and ellipse area. Baropodometry tests showed a decrease in foot surface. Also dynamic tests showed a decrease in both foot surfaces. Discussion. The results lead us to consider this method as a method of first choice to a conservative approach in the rehabilitation of flat foot syndrome also for the 4th grade in children.
The outcome of this study is based on the concept of the enormous potentiality that is “expressed”, after the elimination of myofascial and articular compensation, from the body system. 10 low vision and blind subjects aged between 35 and 50 years. The subjects performed 10 sessions (2/week) for 5 weeks. Each session consisted of a training in the gym (30 minutes) and hydrokinetic therapy (45 minutes) All the subjects at the beginning (T0) and at the end (T1) of the rehabilitation program were tested by static baropodometry and the stabilometric (Milletrix, Diagnostic support, Rome, Italy). Our results shows an increase of the total area of support surface (p<0.05). The stabilometry results shows an improvement of the orthostatic balance, sway area and the ellipse area decrease respectively 15% (236,9vs201 p<0.05) and 41% b(p<0.05). Thus, the energy expenditure of the patient in maintaining the orthostatic position without visual afferences is lower. Rehabilitative treatment in an aquatic environment resulted effective in improving posture and balance in all patients with increased precision in the execution of the step, wich implies less effort during walk, less energy consumption and better quality of life.
Cervical dystonia is a syndrome characterized by anomalous postures and unintentional repetitive movements of the head and the neck. Aim of this study is to show the effectiveness of the combined treatment botulinum toxin-FKT through the use of a recent methodic of investigation, myoton, and of the classical clinical evaluations, such as Tsui and VAS scales. 15 patients (9 females, 6 males) have been selected. During the initial visit and in the following controls, performed every month, patients have been submitted to physiatric examination, clinical evaluation of the dystonia through the Tsui scale, clinical evaluation of the pain through the VAS scale, myometric evaluation. We obtained statistically reduction of muscular tone’s value in passive elongation (t0=16.34±1.23) until 4 month (t4 =16.11±1.23), when we performed a second infiltration. After 4 months from the second infiltration (t8=15.99±1.11) value did not present more some statistical correlation and was necessary to perform a new infiltration. Values of elasticity, stiffness, Tsui and VAS scale followed the same course of the tone. Our study demonstrates that combined treatment botulinum toxin-FKT is effective. It emerges that if to the treatment with botulinum toxin follows a suitable FKT treatment, the effect of the drug lasts 4 months and not 3 months as described by the literature. Our study has underlined that using myometric measurement we can consider least changes in muscular tone, elasticity and stiffness; we have a broader view of the spastic muscle, and we can better plan appropriate rehabilitative care for each patient.
The word dysphagy was suggested by Nicolatopoulos (1907) and derives from the ancient Greek “δυς”, which means “difficulty” and “καταπινειν”, which means “to swallow”. Generally, the dysphagy is defined on the basis of its origin: oral, pharynx and oesophagus, otherwise by its mechanical or neurological aetiology. The symptoms are dependent on the nature of the lesions in the affected organs. The swallow is a complex motor sequence dependent on the coordinate contraction of the muscle of mouth, of larynx and of the oesophagus. The mechanical action of the swallow helps the liquid or solid food progression from mouth to stomach thanks to cooperation of 31 muscles and 5 cranial nerves and allows swallowing about 580 times approximately. The dysphagy in neurological diseases is mainly due to the following reasons. Increase of vascular cerebro-disease, increase of population’s age and increase of road and work traumas. The difficulties in swallowing causes heavy social problems like meager diet, social isolation and worsening of quality of life. The speech rehabilitation requires the involvement of care givers through a re-educational program that takes place in two periods: the first of relaxation, and the second of restoration of phonodeglutition praxis.
Antimuscarinic drugs are the first line pharmacotherapy for overactive bladder, but they are not always effective to achieve complete continence. Nevertheless in some patients urodynamic investigations reveal insufficient effects with continuing incontinence events even with dose optimization. The aims of this study is to evaluate the effect of association of Oxybutynin chloride, Trospium chloride and Solifenacin succinate administered orally for a minimum of 12 weeks in subjects with suprasacral spinal cord injury with urge-incontinence, urodynamic–proven neurogenic detrusor overactivity dysfunction and detrusor-external sphincter dyssynergia to improve level of continence, reduce the risks of urologic complications and enhance QOL. This study was a randomized, double blind, controlled, balanced-parallel-groups investigation of orally administed Oxybutynin in addition to Trospium chloride in the first group and Oxybutynin in addition to Solifenacin in the other group. A total of 12 patients with neurogenic detrusor overactivity and clean intermittent catheterization were allocated into two treatment groups: 5 mg tablet of Oxibutinin and 20 mg tablet of Trospium Chloride were administed respectively 3 times a day and 4 times a day in the first group (Group A). 5 mg tablet of Oxibutinin and 10 mg tablet of Solifenacin were administed respective 3 times a day and once daily in the second group (Group B). In both group of patients we found a significant decrease in incontinence episodes, with an improvement of bladder compliance, bladder capacity and volume voided. Side effects were higher in patients of group B, but in general well tolerated. In conclusion a combined antimuscarinic treatment might be a right option for patients affected by neurogenic bladder refractory to previous antimuscarinic monotherapy, and might slow down or delay other more invasive treatments.
EFFECTS OF HERBAL SUPPLEMENTS ON THE IMMUNE SYSTEM IN RELATION TO EXERCISE

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Athletes who undergo strenuous exercise, especially in endurance sports, frequently use herbal supplements in order to have a better performance. In this review we try to find out if the most common herbal supplements (Echinacea, Rhodiola, Ginseng) are effective in the empowerment of performance or in the modulation of the immune system. It seems that the prevalent effect is adaptogenic rather than ergogenic, with a better tolerance of the exercise induced stress, related to enhancement of the whole immune system and decrease of the oxidative damage.
ASSOCIATED WITH INTRATHECAL BACLOFEN TREATMENT AND DULOXETINE IN PATIENTS WITH MULTIPLE SCLEROSIS

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Baclofen is now used in treatment of patients with severe spasticity secondary to neurological diseases through the direct infusion of drug into the subarachnoid space with an implanted programmable pump. Among patients whose quality of life improved after the use of intrathecal systems, a very important role belongs to people with multiple sclerosis (MS): a disease that due to a great variety of symptoms and signs, seriously affects the activities of daily living. Among the clinical manifestations of MS are also found mental health problems including depression mood. The drugs most commonly offered, for treatment of depression in patients with MS, are selective serotonin reuptake inhibitors (SSRIs), reuptake inhibitors of serotonin and norepinephrine (SNRIs) and tricyclic antidepressants (TCA). Duloxetine presents a high affinity for transporters reuptake of serotonin and noradrenalin, and exerts its activity on both molecules. In addiction, Duloxetine has demonstrated very effective in treatment of depressive disorders of mood as demonstrated by scientific evidences about the utility of Duloxetine in the modulation of painful physical symptoms associated with depression and in treatment of pain associated with diabetic neuropathy. The purpose of our study is to evaluate the effects of antidepressant therapy with duloxetine, 60 mg/day in 7 patients with multiple sclerosis treated with intrathecal baclofen for spastic modulation of tone. The experience we gained, according to data from several multicenter trials confirmed the efficacy of Baclofen intrathecally administered, especially as regards modulation spasticity. Our study also showed, although the limitations of a sample still small, a good clinical response to combined treatment Baclofen intrathecal/duloxetine 60 mg/day.
TREATMENT OF UPPER LIMB SPASTICITY AFTER STROKE: ONE-YEAR SAFETY AND EFFICACY OF BOTULINUM TOXIN TYPE A NT201

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A new preparation of botulinum toxin type A called NT 201, free from complexing proteins, potentially with low antigenicity has been used in the therapy of spasticity in stroke patients. This was an open-label study reported the safety and the efficacy of one-year treatment with NT 201 evaluating the therapeutic effect on functional disability and on quality of life in upper limb spasticity after stroke. Patients received a botulinum toxin therapy in the upper injected intramuscularly. After inoculation, patients were submitted to a motor rehabilitation program for upper limb injected three times/week. Re-treatment was permitted at 12 weeks after the prior treatment. Safety assessment included evaluation of adverse events and efficacy was measured by Modified Ashworth Scale for spasticity (MAS), Spasm Frequency Score (SFS) for the daily spasms, and Disability Assessment Scale (DAS) for disability. Of 35 consecutive patients (13 women and 12 men) screened for study eligibility, 20 (6 women and 14 men) patients (mean age 63,4±7,03) were included in this study and were submitted to NT 201 therapy for one year. At the baseline, botulinum toxin dose in the upper limb ranged from 160 to 450U, whereas total dose in the last treatment administrated was reduced respect the first injections ranging from 120 to 350U. All the enrolled patients completed the year-long study and reported an improvement of clinical picture. MAS, was statistically (p<0,001) reduced in all muscles at T1 (mean score ±SD: 2.65±0.67) and T2 (mean score ±SD: 2.55±0.60) in comparison to the baseline T0 (mean score ±SD: 3.9±0.78). Significant reduction (p<0,001) from baseline T0 (mean score ±SD: 3.25± 0.78) was also noted in SFS at T1 (mean score ±SD: 1.55±0.51) and T2 (mean score ±SD: 1.30±0.47). The DAS score showed a reduction of the T1 score (mean score ±SD: 1.70±0.47) and T2 score (mean score ±SD: 1.40±0.50) respect to baseline T0 score (mean score ±SD: 2.65±0.48) statistically significant (p<0,001). No adverse effects were observed in these patients. NT 201 appeared to be an efficacious and well-tolerated long-term treatment option for patients with upper limb spasticity after stroke, obtaining a substantial improvement in functional disability, muscle hypertone, and daily spasms.