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**The immediate effect of electro-acupuncture on balance and gait in stroke patients with spastic hemiplegia**

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Stroke is a common problem that results in neurologic and functional deficits. Approximately 30,000 people per year in Taiwan, aged over 35, suffer a first stroke. 80 % of stroke patients experience motor impairments, i.e., hemiparesis, poor coordination and gait disturbance. Abnormal spasticity is considered to be the major factor causing these motor impairments.

Acupuncture is one of the main modalities of treatment in traditional Chinese medicine and is a relatively simple, inexpensive and safe treatment. It also has been well-accepted by stroke patients for improving motor, sensation, speech, and other neurological function. Electro-acupuncture (EA) has the same effects as traditional acupuncture.

Thirty subjects from the rehabilitation clinics in Changhua Christian Hospital of Taiwan, aged 45 to 75 years who suffer a first stroke within 6-24 months, were enrolled in a single blind study and randomly assigned to study and control group in equal number. Acupoints applied on patients are affected ST-36 with mid-portion of the tibialis anterior muscle belly and GB-34 with Mid-portion of the Peroneus muscle belly.

All subjects (both group) underwent regular rehabilitation programs. Moreover, The Park-Sham Device (PSD) was used in this study. Only in the study group, Electro-acupuncture was given. Objective laboratory evaluation including computerized gait and balance test and dynamic foot pressure analysis is used to compare the effects of EA between these groups.

The results show significant differences in the degree of asymmetry in GRF in spastic hemiplegia after electroacupuncture treatment. Since that there is no significant improvement in the functional parameters of gait and balance, the results might provide alternatives for further intervention of rehabilitation program.