



Correlation Between hand function performance and Quality of Life in post-thermal hand injured children

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Abstract : Children with thermal forearm and hand burn suffering from pain, limitation of range of motion (ROM), limited hand function which may be reflected on quality of life of those children. Objective: this study was conducted to detect the correlation between hand function performance and quality of life after intensive Physical Therapy hand rehabilitation program in post thermal injured children. Subjects and procedures: Thirty children suffering from forearm thermal injury ranged in age from nine to twelve years participated in this study. They were divided randomly to two groups (control and study). The control group received a selected physical therapy program directed towards improving forearm strength and upper limb performance while the study group received an intensive hand therapy rehabilitation program in addition to the same program of control group. Treatment program in both groups was conducted for two successive months. Each child in both groups was subjected to the same evaluation procedure using hand held dynamometer, hand function abilities detected by Sollerman scale and burn specific health scale brief (BSHS-B) was used for detection of quality of life before and after the suggested treatment period. **Results: regarding** pre and post treatment results in control group there was a positive correlation between hand grip strength and hand function performance, on the other hand, there was no correlation between hand grip strength, simple abilities and hand function performance. Also no correlation between hand function performance, simple ability was detected. Pre-treatment results in the study group showed a positive correlation between hand grip strength and both hand function abilities and hand function performance. A weak positive correlation between hand function performance and both simple ability was recorded. On the other hand, there was no significant correlation between hand grip strength and simple abilities. Post-treatment, in study group showed a positive correlation between hand grip strength and both simple and hand function performance. Also, there was a positive correlation between hand function performance and simple ability. No significant correlation between hand function and both hand grip strength and hand function performance.

Key words: forearm thermal burn, Hand function performance, hand grip strength quality of life, children.