The acute effects of proprioceptive neuromuscular facilitation (PNF) techniques in stroke patients

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The aim of our study is to investigate the acute effects of proprioceptive neuromuscular facilitation (PNF) techniques on pain, chest expansion, vital signs and mobility in stroke patient. Thirty eight stroke patients were allocated two groups: PNF and NDT-BOBATH (Neurodevelopmental Treatment-Bobath) methods group (n=20, mean age=62.90±9.59 year) and NDT-BOBATH method group (n=18, mean age=58.67±12.68 year). The upper extremity exercises to be compatible with the natural development of human mobility were applied in NDT-BOBATH method group. PNF and NDT-BOBATH methods group performed PNF exercises that include scapula, neck, upper extremity patterns by using facilitation and rhythmic initiation techniques in addition to NDT-BOBATH method. PNF and NDT-Bobath methods were applied in single session (30 minutes). The pain (Visual Analog Scale-VAS), chest expansion (measuring of the chest circumference with a tape measure axillary, epigastric, subcostal region), vital signs (heart rate, blood pressure, respiratory rate), mobility (Functional Reach Test) were evaluated before and after the intervention. The heart rate (p=0.026) and respiratory rate (p=0.024) scores were significantly increased in PNF and NDT-BOBATH methods group. The diastolic blood pressure (p=0.026), respiratory rate (p=0.049) and Functional Reach Test scores (p=0.011) were significantly increased in PNF and NDT-BOBATH methods group. There were statistically significant differences in VAS score (p=0.043) between two groups. It appears that PNF techniques have immediate effects on mobility and reducing pain in stroke patients. It is thought that PNF techniques are one of the safe and useful rehabilitation component to increase upper extremity function.

Biography
Manolya Acar Özköslü is currently a PhD student at Hacettepe University, Turkey and a Lecturer in the Phytotherapy and Rehabilitation Department, Health Science Faculty, Baskent University at the same time. He is currently working on his PhD thesis and is interested in neurological and cardiopulmonary rehabilitation. He has published 8 papers in reputed journals.

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