Effect of Proprioceptive Neuromuscular Facilitation in Functional Recovery of Patient’s with Stroke-A review

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Citation: Chaturvedi A (2017) Effect of Proprioceptive Neuromuscular Facilitation in Functional recovery of Patient’s with Stroke-A review. J Neurol Neurosci. Vol. 8 No. 5:220

Abstract

Background: PNF has been used for very long time for the functional improvement of stroke. In this review functions were selected according to the ICF (International Classification of Functioning, Disability and Health) corsets in the domain of Activity and Participation.

Aim: The purpose of this study is to review the effectiveness of PNF in stroke for functional recovery of patients.

Method: PubMed and Google scholar was searched using the following strategy- Language- English, Time period- all, Keywords- PNF, stroke, gait, balance, functional recovery. Inclusion criteria- RCT, meta-analysis, CASP- 80%.

Conclusion: This finding provides important aspects regarding the use of PNF in functional recovery of stroke, in various functional activities according to the ICF corsets, as PNF helps in major areas like gait, co-ordination and balance.

Implications: There is no enough clear evidence on the use of PNF in stroke, although there are reviews that state use of specific techniques for specific goals. Further studies are required to see the use of various PNF techniques as a whole or individually. Until then PNF technique can be used in clinical practice as there is no report of adverse events.

Keywords: PNF; Functional recovery; Stroke; Gait

Introduction

WHO define stroke as “acute onset of neurological dysfunction due to abnormality in cerebral circulation with resultant signs and symptom that corresponds to involvement to focal area of brain lasting more than 24 hours”. PNF has been used for very long time for the functional improvement of stroke. The purpose of this study is to review the effectiveness of PNF in stroke for functional improvement of patients. In this review, functions were selected according to the ICF corsets in the area of activities and participation are as follows.

Methods

Pub med and Google scholar was searched using the following strategy (Tables 1 and 2):

English articles between 2011-2015.
Inclusion criteria - RCT, Meta-Analysis.
CASP 80% rating.

Results

PNF is a collection of treatment. It includes various patterns and techniques. Rhythmic initiation, rhythmic stabilization, slow reversal, agonistic reversal, stabilizing reversal is few of the PNF Activities and Participation

<table>
<thead>
<tr>
<th>Activities and Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Copying</td>
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<tr>
<td>• Rehearsing</td>
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<tr>
<td>• Acquiring skills</td>
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<tr>
<td>• Writing</td>
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<tr>
<td>• Changing basic body position</td>
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<tr>
<td>• Maintaining a body position</td>
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<tr>
<td>• Transferring oneself</td>
</tr>
<tr>
<td>• Walking</td>
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<tr>
<td>• Moving around in different locations</td>
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<td>• Moving around using equipment</td>
</tr>
<tr>
<td>• Toileting</td>
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<tr>
<td>• Caring of body parts</td>
</tr>
</tbody>
</table>

Table 1 The ICF corsets in the area of activities and participation.
techniques which are effective in functional recovery of patients with stroke.

**Discussion**

PNF is a collection of treatment, it includes various techniques and patterns. Rhythmic initiation and stabilization slow reversal, agonistic reversal, stabilizing reversal, are few of the PNF techniques which are effective in functional recovery according to this review.

**Conclusion**

These findings provide important aspects regarding the use of PNF in functional recovery of stroke, in various functional activities according to the ICF corsets, as PNF helps in major areas like gait, balance.

**Future Implications**

There is no enough clear evidence on the use of PNF, although there are reviews that state use of specific techniques for specific goals. Further studies are required to see the use of various PNF techniques as a whole or individually. Until then PNF technique can be used in clinical practice as there is no report of adverse events.
References


