Reviewer’s report

Title: An immediate effect of PNF specific mobilization on the angle of trunk rotation and the Trunk-Pelvis-Hip Angle range of motion in adolescent girls with double idiopathic scoliosis – a pilot study

Version: 0 Date: 14 Jul 2016

Reviewer: Fabio Zaina

Reviewer's report:

This is a paper about PNF to increase trunk rotation in AIS. No previous study as presented data about this topic, and we don't really know which affect to expect in AIS patients.

There area many points to address

Main

Introduction

The study question is not clear. Please follow the PICOT and improve it. Moreover, it seems the study question is stated twice, at lines 69-72 and 81-85, and the whole paragraph from line 69 to 85 could be better written, avoiding repetitions and moving some parts describing the technique (78-80) to the methods.

Methods

Sample: Please describe only the inclusion criteria and the sampling procedure here, while the characteristics of the included patients should be reported in the results.

How were the patients selected? Where they consecutive? Which was the accessible population? There is a table including data from 133 patients, is it the accessible population?

Which were the inclusion and exclusion criteria?

Which is the main outcome? This is totally unclear.
Which is the repeatability of the TPHA measure? This is info in crucial for this study.

Who assessed the TPHA? Was he/she expert in this? How was trained?

Who assessed the outcome and who applied the PNF technique? Was the same operator? In case it is, it's a limitation that must be addressed in the discussion.

Results

You have uploaded a file with all the data of the patients, including their names. This is not ethical. Please provide only the main data.

Were the changes clinically relevant? According to your raw data, only about 30% of subjects had changes larger than 2° in the ATR (the minimal clinically relevant change), with some outliers who changed more than 10°. This should be reported and discussed, since at least for this parameter the clinical effect is doubtful.

Discussion

The change in the ATR at short time must be interpreted in cautious way because we don't know it's meaning. Usually an increase in the spinal mobility is associated with a worsening of the ATR, while when the spine becomes more stiff the ATR reduces. So your results are quite unexpected. Please discuss this point.

Moreover, a increase in the spinal mobility is considered dangerous for scoliosis, so it's not a goal for the treatment. Studies about rhythmic gym showed this clearly. Please discuss this point.

Many part of the discussion are not relevant. For example lines 231-239.

Line 295: "this study is the first which demonstrates the effectiveness of selected PNF in treatment of AIS". This is not supported by your data since you have only immediate effect on ATR and no radiography or other measures.
Minor:

Reference 3 is out of date, there is a new version of the guidelines from 2011.

About PNF, can you please cite scientific articles instead of books?

Level of interest
Please indicate how interesting you found the manuscript:

An article of limited interest

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