Reviewer's report

Title: Conservative treatment of idiopathic scoliosis according to FITS concept: presentation of the method and preliminary radiological and clinical results respecting SOSORT and SRS criteria.

Version: 1 Date: 6 July 2011

Reviewer: Jacek Durmala

Reviewer's report:

The subject of the manuscript is very interesting, important and current.
The manuscript was written rather carelessly.
In my opinion the text requires some corrections.
The first problem- a divergence in the performance of the material and the results of the study - for example:
• From the original text: “The group comprised children older than 10”, but in the results of manuscript we have nine-year-old young girl!
• I do not know if subgroups (A2 and B2) were described correctly (as “double thoracic (Th) and thoracolumbar or lumbar (ThL/L) curves”). Probably the correct description is: Double major scoliosis, thoracic (Th) and thoracolumbar or lumbar (ThL/L) curves?

References require supplements, adequate citations and corrections in description.
• I propose to take into account the last systematic review from „Physiotherapy Theory and Practice” (C.Fusco et al. 2011).
• Position 30. is the inadequate source of the sentence “One of the first symptoms of scoliosis is deformation of physiological shape of spine in sagittal plane (particularly flattening of thoracic kyphosis) [30].” This citation is secondary!

FITS is described not clearly (the method is used for idiopathic scoliosis only? or for all scoliotic deformations?).

Who is the author of the method? How many authors this text has? - “The authors of this concept emphasise a great role of child awareness of the type of scoliosis but also trunk deformation caused by scoliosis. We analyze the X-Ray with child, the three-dimensional position of scoliosis on the model of the spine and we show direction of correction (Figure 2). In our opinion making the child a partner not a subject of therapy, increases significantly motivation to exercise and improves the effects of therapy at the same time.”

The material was described imprecisely. It’s no clearly for reader the characteristic of the patient groups (only with adolescent idiopathic scoliosis, if also with early onset scoliosis).
How many people estimated the measurements of X-ray pictures? It lacks precise information about clinical measurements and time of making X-ray pictures. Did pictures are made in the same conditions?
Did all patients use FITS only?
It lacks the correlation among the time of using the method (in- and outpatient) and the effects of the therapy.
It lacks information about results of 26 patients, who finished the treatment. This group requires the separate analysis and presentation of results.
It lacks the full presentation of results (average, standard deviations, the range) for all groups.
The results of the therapy were presented only as percentage values - it lacks absolute values (number of persons) and values of the improvement and worsening the size of curves (range, average, standard deviation).
The units of measure were not shown in tables with results.
The title and conclusions must be to define precisely.

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests' below. If your reply is yes to any, please give details below.