Reviewer’s report

Title: A new brace treatment similar for adolescent scoliosis and kyphosis based on restoration of thoracolumbar lordosis. Radiological and subjective clinical results after at least one year of treatment.

Version: 3 Date: 26 July 2012

Reviewer: Hans-Rudolf Weiss

Reviewer’s report:

Major Compulsory Revisions

Sorry to say, but the paper still is not ready for being published:

1. The authors did not at all try to make a point to point response to the questions risen, which I would have expected!
2. The authors did not highlight the changes made in the ms.!!!!
3. The authors did not at all respond to the point that the ms. did not and still does not at all comply to journal style
4. There are still spelling errors and the language still does not seen to be copyedited by a native speaker.
5. The discussion is not precise in many points and one point is: „Especially since Dickson describes lordosis in relation to scoliosis to be seen as hazardous, or at least under suspicion.[36] Recently Ni and colleagues confirmed our discovery of a thoracolumbar kyphosis in scoliotic girls and gave it an important place for future developments in therapeutic strategies.[37]“ - Dickson always was focussing on 'thoracic' lordosis and never discussed lumbar lordosis, so still 2002 Raso has not had a clear opinion about what has happened to lumbar lordosis (you can find this discussion in my papers....)
6. The discussion is not precise in many points and one point is: „In the approach of Weiss the lordotic forces at the lumbar spine and their influence on coronal curves is clear, but is not suitable for correction of, or recommended, for kyphotic deformities during childhood.“ - The physio-logic™ brace is used for the treatment of kyphosis of course, but only for the lumbar and thoracolumbar curve patterns!
7. The curvature corrections in coronal plane surely can be regarded as being excellent when exceeding 30% of the initial value, which is comparable to the Boston brace standard (Appelgren / Emans to be discussed and cited here), however the authors do not discuss why they would not go further and add on 3D corrections like has been done in the recent developments to achieve in-brace corrections of nearly 60%???? (Hans-Rudolf Weiss, Mario Werkmann (2012) Rate of surgery in patients treated with a Chêneau light brace using the SRS inclusion criteria Polish Annals of Medicine 19: 1. 1-8 (January–July 2012) / Hans-Rudolf Weiss, Mario Werkmann (2012) Rate of Surgery in a Sample of

8. Table 3: It is simply wrong that the physio-logic™ brace is based on coronal plane corrections. It has no lateral supports and therefore no lateral pressure points to correct frontal plane deformity. Furtheron it is not explained why the technique described (TLI) has a ++ and the physio-logic™ brace has a +, only when it comes to sagittal contour correction???? Different level, I can accept but it is not based by any scientific work the TLI supports sagittal contour more than the physio-logic™ brace....

I feel a bit desperate by now and cannot understand why the authors do not really want to improve the ms. They have to acknowledge that similar developments have been undertaken at other places as well and if I look into the very old literature from the 19th century, there are people to be found who where also discussing lumbar lordosis. I would not like to go that far, but discussion has to take into account the actual state of the art and there is much more than the authors present in their paper.

I’m sorry to say, but if the paper is resubmitted another time not complying to journal style, without highlighting the changes made and without a point to point description in the cover letter as usual I will have to reject the paper finally!

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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

Declaration of competing interests:

Still the reviewer is advisor of Koob Scolitech, Abtweiler, Germany