

Response to: Letter to the Editor concerning the Article “Adolescent Idiopathic Scoliosis: A 71 Cases Study Ascertaining that Straightening Is Possible, and a New Etiological Hypothesis”

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A risk of perversion in medical research exists when it values methodology more than therapeutic improvements, with the result that patients will not be allowed to benefit if the slightest methodological bias can be found. Unfortunately the analysis of Zaina et al. lacks rigor.

- About the so-called selection bias: “Scoliosis is defined as a lateral curvature of the spine that is 10° or greater on a coronal radiographic image while the patient is in a standing position”, according to their own reference [1]: this is exactly the case for all the patients included in our study. As could be expected, since they were not selected, 2/3 of our patients had 11° to 20° at the beginning, but 1/3 had between 21° and 62° at start. (Do we really have to answer criticism about what is clearly mentioned in the text? Zaina et al. had one year to read it. Criticism for criticism’s sake is not very productive).

- Of course the fact “that neck contracture caused scoliosis (...), is not supported by current knowledge about structural scoliosis etiology”, since we are the first to suggest this. The article cited as reference [2] was published before ours, so obviously our hypothesis could not be mentioned in it. However ‘Balance control and vestibular systems’ are mentioned, and this is part of our etiological

hypothesis.

Nevertheless the main problem with such an argument is that if we are not allowed to think outside what is already known, obviously no advances can be made: we would still be with Galen’s concepts. It’s the old demon of medicine: William Harvey and all the other researchers who wanted to move things forward have had the same problem with scholasticism. *Eppur si muove...*

- The concept of antalgic scoliosis is a new one and a strange one. How could scoliosis be antalgic, and what would be the cause of pain? How many children does this concern? Mystery...

- Our follow-up was rather short. As stated our goal was to show that straightening is possible. Should we be sorry that this was achieved in a rather short time (6 months on average)?

Our hope was that such unusual results would lead us to work with various specialized centers worldwide, where greater numbers and longer follow-up would have been possible. We are still waiting...

Anyway, half of the patients had less than 10° at the end of treatment, where only controls are necessary, because it is not considered as Scoliosis [1].

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On the other hand, a *decrease* of Cobb angles of an average of 8°, up to 25°, is not something that can be dismissed (or that is what we thought...). Is there a single study that shows results like these?

- We are sorry if we improperly used the term of adolescent idiopathic scoliosis (AIS): this is however usual. Any reader has understood that the 5 patients younger than 10 years of age were not adolescents. However prognosis being worse at that age and our results being excellent, we thought they were worth mentioning. Moreover they were clearly separated in our analysis (again, please thoroughly read the text you criticize).

- Zaina et al. also write: “a short-term improvement doesn’t really change the deformity”. So what is an improvement of scoliosis if it does not change the deformity...?

- “Large changes in Cobb’s angles can occur even during the same day”: in reference [3] to support this argument only scoliosis of more than 40° were included. Whether they had had treatment or not was not mentioned. These are clearly two huge biases. Generalization would therefore be totally improper. Besides if this was done, not a single study on idiopathic scoliosis (IS) would have any value, including those of the authors who criticize our survey...

- In the same vein reference [4] is the most biased reference of all: this study (by the way made by those who criticize ours) is about... one single case! This has, of course, no scientific value at all. Please compare it with our 71 cases and 38 different therapists, which show the reproducibility of the used method. As a French philosopher wrote: « La critique est aisée mais l’art est difficile ».

- The Risser test is not a « gold standard »: many specialists prefer the chronological age (we mentioned this in our article). The presence or the absence of Risser sign does not change the fact that most of the scoliosis cases of our study were straightened.

- “The etiological theory was not demonstrated”: of course it is only a hypothesis, but at least it exists, and it is plausible. It might even not be so far from the truth: otherwise how could we have straightened scolioses (up to 25°) with treatments acting only on the muscles of the neck, with no local treatment whatsoever?

- “The effect of the treatment is probably a provisional postural change and not an improvement of any deformity”: such an unwarranted allegation denies any value to Cobb’s angles measurements of Scoliosis by X-rays, and

thereby to any study on this disease, including their own. It is bordering the absurd, merely in order to justify their conservatism.

- “Proposing this technique alone, as an alternative to bracing, is not supported by data”. This is untrue: all data point to the fact that this is a disease-modifying treatment for so-called idiopathic scoliosis.

It is the point of view of Zaina et al. that is biased: in their reference [5] it is mentioned (and widely accepted) that braces are not recommended before 25°. Nevertheless, one of our Italian critics (M. Romano) has made a study, which can be found in English on the internet [6], about scoliosis between 10° and 20°, and one group of 35 patients with these angles has been prescribed braces! To say the least, this is highly surprising when the risk of aggravation is only 20%, and therefore 80% of patients had a brace for nothing (and even then the results are not mentioned).

We understand that bracing fans do not appreciate our study, showing not only that braces are unnecessary, but also that they seem to be a hindrance for a disease-modifying treatment of IS. If those who prescribe braces tried them themselves for some time, maybe they would be less enthusiastic and more open to new ideas: braces are very constraining, and ineffective in straightening scoliosis. It is not even proven that they help to slow them down, as Zaina et al. have written themselves [7]: “There is very low quality evidence in favor of using braces, making generalization very difficult” (so why do they go on prescribing braces?); and “Today the only alternative to bracing is the so-called “wait and see” strategy”. This is no longer true with our study.

Our treatment is a harmless and efficient one: isn’t it better to try it than to “wait and see”, or to use braces, both of them expecting no straightening whatsoever? There would be no risk at all, and only the possible benefit of improvement. Are we not all working for children with scoliosis? Is their well-being not more important than any other consideration? Or have we become indifferent?

In fact, what is saddening is that Zaina et al. probably reflect the point of view of many specialists worldwide: more than one year after our study “showing incredible improvement of scoliosis with a manual therapy technique (according to Zaina et al. themselves)” has been published, not a single specialist has contacted us in order to be able to test our results; as if it was not even worth

trying. Of course at first sight this might comfort Zaina et al. that they are right, but it can also show that moving mountains could be easier than moving medical conservatism. I feel sorry for all the children in the world who might have been improved or cured in 2014.

Michael Crichton, the famous writer, who by the way was also an MD, and obviously knew his colleagues well, wrote: *“Practically speaking, it is much better to discover a new disease than to find a cure for an old one; your cure will be tested, disputed and argued over for years, while a new disease is readily and rapidly accepted.”* (in: A case of need). This was written in 1968, and one might think that half a century later things might have improved somewhat... In fact things have worsened: a new treatment is not even tested any more.

Conflict of Interest

No potential conflict of interest relevant to this article was reported.

References

1. Hresko MT. Clinical practice. Idiopathic scoliosis in adolescents. *N Engl J Med* 2013;368:834-41.
2. Dayer R, Haumont T, Belaieff W, Lascombes P. Idiopathic scoliosis: etiological concepts and hypotheses. *J Child Orthop* 2013;7:11-6.
3. Beauchamp M, Labelle H, Grimard G, Stanciu C, Poitras B, Dansereau J. Diurnal variation of Cobb angle measurement in adolescent idiopathic scoliosis. *Spine (Phila Pa 1976)* 1993;18:1581-3.
4. Negrini A, Parzini S, Negrini MG, et al. Adult scoliosis can be reduced through specific SEAS exercises: a case report. *Scoliosis* 2008;3:20.
5. Richards BS, Bernstein RM, D'Amato CR, Thompson GH. Standardization of criteria for adolescent idiopathic scoliosis brace studies: SRS Committee on Bracing and Nonoperative Management. *Spine (Phila Pa 1976)* 2005;30:2068-75.
6. Romano M, Negrini A, Parzini S, Donzelli S, Zaina F, Negrini S. Adolescent with 10° to 20° Cobb scoliosis during growth: efficacy of conservative treatments. A prospective controlled cohort observational study [Internet]. London: BioMed Central Ltd.; 2012 [cited 2015 Apr 6]. Available from: <http://www.scoliosis-journal.com/content/7/S1/O50>.
7. Negrini S, Minozzi S, Bettany-Saltikov J, et al. Braces for idiopathic scoliosis in adolescents. *Cochrane Database Syst Rev*. 2010;(1):CD006850.