Reviewer’s report

Title: Vocal and Motor Behaviors as a Possible Expression of Gastrointestinal Problems in Preschoolers with Autism Spectrum Disorder

Version: 1 Date: 05 Nov 2019

Reviewer: Leonardo Zoccante

Reviewer's report:

I thank the Authors for having made changes to the manuscript following the comments and suggestions given to them by the reviewers.

The identification of AB behaviors (verbal, motor or global state change) has proved to be a useful clinical marker in providing a better characterization of preschooler autistic subjects with gastrointestinal disorders in relation to the epidemiological relevance and the high heterogeneity with which this comorbidity presents itself within the Autistic Spectrum. In my clinical practice I often observe that specific and shared patterns of response to physical problems, such as constipation, alternate alveus, diarrhea, etc., can be observed in ASD or Non-Verbal subjects in particular, which can in turn trigger actual anxiety disorders and affective disorders. The presence of this "physical" problem can also characterize the progress of the basic clinical picture but unfortunately it can also be difficult to express and share in relation to the reduced verbalization skills. In the same way the verbal skill deficit frequently correlates with the presence of fixed and repeated behavioral patterns towards the task to be performed.

One of the strengths of a case-control observational study such as this is having identified a specific connection particularly between functional disorders, very often recurrent in ASD subjects, and the typology of the manifested abnormal behaviors.

Another interesting element is represented by the operative proposal for the use of a simple screening questionnaire for abdominal symptoms which can be administered in a short time.

Further scientific contributions may be useful in the future to deepen the examination of verbal skills and to better understand the most recurrent modes of expressing pain and abdominal discomfort among people with Neurodevelopmental Disorders. Similar studies may show interesting results even when the correlations between organic gastroenterological disorders (GERD, IBD, celiac disease, etc.) and their behavioral expression in the Autistic Spectrum are placed under investigation, in those cases in which the latter coexist with the basic clinical framework. At the same time, this would allow the interception of cases with manifestations that are currently still unexplained.

Of particular interest was the use, in the Discussion and in the Results sections, alongside the ADOS scores, of the results obtained through the CBCL scale, allowing the identification and differentiation of internalizing and externalizing profiles, as well as providing information on Global Scores. The possibility of having precise and unbiased scores from clinical behavioral
scales will play an increasingly important role in correlating more visceral related conditions and motor and behavioral outputs that often arouse parental concerns.

Regarding the section of the manuscript that deals with the issue of an age and sex-matched "control group", I believe that the identification of the "ASD without GI symptoms" subject group and the "Verbal profile ASD" subject group as control groups became clearer after the changes made by the Authors. Particularly relevant was the final integration in which, when reporting the limits of the study, the Authors acknowledged the sample number factor of the two compared groups.

On the basis of these considerations and after the changes made by the Authors, my opinion is that the manuscript requires no further revisions before publishing.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
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Yes

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I am able to assess the statistics

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