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RESPONSE TO LETTER

Using Radial Shock Wave Therapy to Control Cerebral Palsy-Related Dysfunctions: A Randomized Controlled Trial [Response to Letter]

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Dear editor

With great interest, we read the Letter you received about our article "Using Radial Shock Wave Therapy to Control Cerebral Palsy-Related Dysfunctions: A Randomized Controlled Trial".

First of all, the authors would like to thank the authors of the Letter, Dr. Omar et al, for the encouraging debate and their positive impression about the role of the study in the growing evidence regarding the use of radial shockwave therapy (rSWT) in a relatively new field which is pediatric rehabilitation.

Omar et al raised several concerns about the study that might confuse the final results. Here, we will discuss each concern separately. The first concern was the possible influences of sports and physical activities other than physical therapy on the outcomes, especially the ROM and GMF. However, we agree with this argument. We were aware of the characteristics of the population under research. In our study, all participants practiced regular daily activities according to their abilities without specific differences. Of course, our sample was primarily not targeting athletic children or those practicing heavy physical activities. Otherwise, we had to report this in the inclusion criteria.

The second concern was about the lack of clarity on the concealment process. The authors of the Letter seem to conflict between the concealment process and the blinding. The concealment process starts with the allocation stage and ends when the data collection begins. Once the data collection and therapeutic interventions are introduced, unaware people are called blind.[1] In our study, all responsible personnel (patients, therapists, assessors, and statisticians were concealed), which means the allocation process was controlled by a person not involved in any assessment of treatment-related tasks. According to Omar et al, the therapist was not concealed, which is not an accurate argument. In fact, the therapist was not blind, which means that once the therapeutic interventions started (after the end of the allocation process), the therapist had to uncover the concealment to provide the appropriate intervention to the children, either in the study or control groups (page 5 in the main study).

The third concern raised by the authors was regarding the power test and the inaccuracy of the results, which might make our study underpowered. In fact, there was a minor difference in the parameters mentioned by the authors and what we actually did. In our study, we used the F-test group, not the *T*-test group, as suggested by Omar et al, so that the

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sample size was 34. Interestingly, we included a much higher number of children in the study, which exceeded the predetermined number due to the children's availability and the families' willingness to join our study. However, we agree with the authors regarding the challenges faced by researchers in the rehabilitation field in collecting the appropriate sample size; we were lucky because the study population was easily accessible in Saudi Arabia due to the relatively high incidence of cerebral palsy, which reaches up to 1.6 according to certain studies.[2] Moreover, an earlier study argued that the incidence rate is much higher compared to different regions of the world.[3] Additionally, the special care exerted by Saudi Authorities has been directed to provide major, well-equipped rehabilitation centers available in every big city, where plenty of children with CP receive high-standard rehabilitation care.

Finally, the authors raised another concern about the possibility of a performance bias secondary to the wrong description of the study as double-blind. The authors argued that double-blind research refers to studies in which the patients and the investigators are blind. However, the authors provided support for their argument from previous literature; others disagreed with the authors' argument. For example, in their study, Lang and Stroup reported obvious ambiguity in the term double-blind, with no consensus among researchers defining which groups in the study personnel should be blinded to grant the term double-blind.[4]

As we finish our reply, we thank Omar et al for this valuable argument about using rSWT in rehabilitating children with cerebral palsy.

Disclosure

The authors report no conflicts of interest in this communication.

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