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LETTER TO THE EDITOR

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COMMENTARY ON: "DEVELOPMENT OF GRIP STRENGTH DURING THE FIRST YEAR AFTER STROKE"

We read with interest Roland Stock et al.'s article, entitled, "Development of grip strength during the first year after stroke" (1), and found the information useful; the study and thought processes described are interesting and useful. However, we consider that the following methodological issues need to be addressed.

First, the authors recruited patients with stroke, but did not categorize the type of stroke included in the study. Different types of stroke represent specific features that signify the area of involvement. The outcome of this study was grip strength, but this outcome is not necessarily affected in all types of stroke, as should have been explained (2).

Secondly, the authors mentioned $ICC_{(3,1)}$ for determining the degree of agreement between 2 raters, whereas model 3 of the ICC indicates fixed raters with random subjects and is hence termed a mixed model. To determine the degree of agreement between 2 raters, model 1 or 2 of the ICC should have been used (3).

Thirdly, the authors did not mention the normality test for addressing whether data distribution is normal (4). A further concern is the inappropriate representation of data in the Table. In Table I, the data is represented as means and standard deviations, which suggests that it should be normal in distribution. However, range is also used. Range is generally used with median values, when the data is not normally distributed (4).

Apart from the aforementioned issues, this exploratory study is highly informative and might be very effective if the above-mentioned issues were highlighted.

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Rajnee Mishra, BPT, (MPT)
From the Department of Pediatric and Neonatal Physiotherapy, Maharishi Markandeshwar Institute of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana-133207. Haryana, India. E-mail: rajnee08mishra@mmumullana.org

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RESPONSE TO LETTER TO THE EDITOR FROM MISHRA

We thank Dr Mishra for her interest in our work and her thoughtful comments. We agree that it would be interesting to assess whether type of stroke (size and precise localization of the lesion) would influence the progression of grip strength. However, to compare different types of stroke would require a high number of participants, and analysing subgroups with regard to type of stroke was beyond the scope of this exploratory study. The main focus of our study was on the development of grip strength during the first year after stroke. Only patients with reduced strength were included in the study. As stated in the paper, inclusion criteria were persistent unilateral paresis, i.e., arm function 2–5 or hand motor function 2–4 on the Scandinavian Stroke Scale.

Regarding the analysis of intra-class correlation (ICC), it may have been more appropriate to use $ICC_{(2,1)}$ than $ICC_{(3,1)}$. Nevertheless, the resulting coefficients were identical between the 2 methods and therefore would not influence our conclusions.

As stated in the paragraph on statistical analysis, data were normally distributed if mean values (standard deviation; SD) were presented in the results. In Table I, the range (i.e. the lower and upper range values) was included to provide additional relevant information about the study sample. This should not be confused with making interpretations about the distribution of the data.

Roland Stock, Gyrd Thrane, Torunn Askim, Audny Anke and Paul Jarle Mork
From the Department of Physical Medicine and Rehabilitation, Trondheim University Hospital, NO-7071 Trondheim, Norway. E-mail: roland.stock@stolav.no

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