

TRANSTEMPORAL INVESTIGATION OF BRAIN PARENCHYMA ELASTICITY USING 2-D SHEAR WAVE ELASTOGRAPHY: VALIDATION APPRECIATED!

On behalf of all authors we appreciate the letter of Tzschätzsch et al. (2019) regarding potential discrepancies in magnetic resonance and sonography values. Indeed, we omitted a description of the method of elastography implemented with the Philipps iU22 system (Ertl et al. 2018). Based on a literature research, our system uses the shear modulus (G) approach (Nguyen et al. 2014). Therefore, the discussion of discrepancies between the reported technique and magnetic resonance elastography methods also using the shear modulus would be obsolete. Nevertheless, this conversion would be a very good explanation for the discrepancies between the values generated in our population and those in the study by Chauvet et al. (2016).

In summary, our main aim was to investigate the feasibility of the ultrasound method and the data acquisition in normal brain tissue. As our data suggest, the values in normal brain tissue seem to be reliable, with relatively little variation between the probands. From a sonographic point of view, we therefore think that these data can serve as a basis for further studies of pathologic conditions. The thickness of the skull is obviously an issue, but in the presence of a sufficient bone window, we were able to generate consistent values.

Of course, validation of our data by other groups would be highly appreciated.

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