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Letter to the Editor

Letter regarding the article "Lumbar opening pressure and radiologic scoring in idiopathic intracranial hypertension: is there any correlation?"

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I read with great interest the article by Tuncel *et al*., in which they found no association between lumbar opening pressure (LOP) and radiological scores based on cranial magnetic resonance imaging (MRI) and contrast-enhanced MR venography in patients with idiopathic intracranial hypertension (IIH) [1]. I appreciate the authors for conducting such a smart study, which may add substantial perspectives to our understanding of the underlying pathophysiology of IIH. However, I would like to comment on the article, for a better understanding of the report, and give some new perspectives.

First, the authors explained the non-association between LOP measurements and neuroimaging findings via considerations such as the fact that LOP can vary throughout the day, and measurements can be affected by the lack of standardisation. They also stated that the criterion of LOP values should be used with caution, and they referred to a previous study reporting high LOP values in the general population [2]. In conclusion, they mentioned that LOP might be used as a minor criterion in diagnosing IIH in the future. However, LOP provides the only opportunity to directly measure intracranial pressure (ICP), which makes it a vital requirement in the diagnosis of IIH [3]. Remarkably, neuroimaging findings of IIH may only give indirect consideration regarding the increased ICP such that their specificity and sensitivity are not sufficiently high to be compared with LOP [4]. Besides, it has been emphasised that their presence is not required for the diagnosis of definite IIH, and their incidental discovery on brain imaging should not prompt invasive procedures (in the absence of other clinical signs of IIH) [4]. Ergo, I think that the suggestion of the authors (LOP as a minor criterion in diagnosing IIH) is an overly ambitious comment, based on this study method and lack of supporting literature. In addition, I think that while commenting on the role of LOP in identification and evaluation of IIH, its association with the presence and severity of clinical findings of IIH (rather than solely on neuroimaging findings) needs to be investigated. Second, I think that data on the duration of the IIH symptoms may be critical and should be evaluated in association with neuroimaging findings. Also, papilloedema grading data might give substantial contributions in this regard. On the other hand, another interesting related discussion may be that currently there is not a reliable paraclinical marker that can be used in the detection of the severity of IIH and prognostication of the patients. However, Tuncel *et al*., revealing non-association between LOP values and indirect data of increased ICP (neuroimaging findings), provided substantial contributions in this regard. Remarkably, another lumbar puncture measurement, called intracranial elastance (defined as the change in pressure of CSF per unit volume), was recently shown to be increased in IIH, and it was also hypothesised to be linked with prognosis of the IIH [5,6]. However, taking the study results of Tuncel *et al.* and above-mentioned discussions together, there is still a long way to go to identify a validated prognostic marker in clinical practice and enlighten the mechanisms of unknown aspects of IIH.

Conflict of interest

The authors report no conflict of interest.

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Authors' contribution:
A Study design · **B** Data collection · **C** Statistical analysis · **D** Data interpretation · **E** Manuscript preparation · **F** Literature search · **G** Funds collection

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