

Improved sensitivity of Kernig's and Brudzinski's sign in diagnosing meningitis in children

Sir,

I read the article titled "Appraisal of Kernig's and Brudzinski's sign in meningitis" by Mehndiratta *et al.*, with interest.^[1] It is amazing to note the kind of importance given to meticulous clinical examination and contributions of the great clinicians, at a time when no sophisticated technology or lab facilities were available. I would like to make a few important comments regarding the article.

The authors mention that Kernig's and Brudzinski's sign have low sensitivity and have shown references to validate their claims. However, all references about these signs in children with meningitis are more than 25 years old. In contrast, recent studies have shown better sensitivity than the old references cited by authors. A recent meta-analysis including 10 studies on clinical features suggestive of meningitis in children has revealed the sensitivity and specificity of Kernig's sign to be 53% and 85%, respectively, and of Brudzinski's sign to be 66% and 74%, respectively.^[2] Another study carried out on 108 children revealed that Brudzinski's and Kernig's signs are present in 51% and 27% of children with proven meningitis with relatively high positive predictive values of 81% and 77%, respectively.^[3]

It should be noted that diagnosis of Tuberculous meningitis in children is extremely difficult and not straightforward as in bacterial meningitis. I hope the authors would agree that those cited studies are from the days of the pre-imaging

era where diagnosis was solely based on lumbar puncture alone. Now, with the advent of neuro-imaging, polymerase chain reaction, and other newer diagnostic methods for the diagnosis of TB in children, more cases are being effectively diagnosed, which can explain the increase in sensitivity in recent studies.

Timely diagnosis and treatment, which are crucial in the management of meningitis, are facilitated by the presence of Kernig's and Brudzinski's signs.^[4] These signs are also utilized in numerous scoring algorithms for diagnosing meningitis and also provide enough justification for proceeding with a lumbar puncture and instituting therapy.

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References

1. Mehndiratta M, Nayak R, Garg H, Kumar M, Pandey S. Appraisal of Kernig's and Brudzinski's sign in meningitis. *Ann Indian Acad Neurol* 2012;15:287-8.
2. Curtis S, Stobart K, Vandermeer B, Simel DL, Klassen T. Clinical features suggestive of meningitis in children: A systematic review of prospective data. *Pediatrics* 2010;126:952-60.
3. Amarilyo G, Alper A, Ben-Tov A, Grisaru-Soen G. Diagnostic accuracy of clinical symptoms and signs in children with meningitis. *Pediatr Emerg Care* 2011;27:196-9.
4. Ward MA, Greenwood TM, Kumar DR, Mazza JJ, Yale SH. Josef

Brudzinski and Vladimir Mikhailovich Kernig: Signs for diagnosing meningitis. *Clin Med Res* 2010;8:13.

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