McAviney and Brown
Journal of Medical Case Reports (2022) 16:453
https://doi.org/10.1186/s13256-022-03641-y

Journal of Medical Case Reports

LETTER TO THE EDITOR

Open Access

Response to the letter to the Editor regarding "Treatment of infantile idiopathic scoliosis using a novel thoracolumbosacral orthosis: a case report"

Jeb McAviney[1] and Benjamin T. Brown[2*]

We thank Fludder and Keil for highlighting the typographical error in the manuscript. A diagnosis of scoliosis is confirmed when the Cobb angle is $\geq 10°$ [1].

With regard to plagiocephaly, the early literature on infantile idiopathic scoliosis highlighted an association between scoliosis and plagiocephaly. In this field, the side of plagiocephaly has historically been classified according to the recessed area of the skull when viewing/measuring the patient's skull from an anterior to posterior direction. The side of plagiocephaly according to this classification system is almost exclusively seen on the side of curve convexity [2, 3]. We have used this naming convention.

Fludder and Keil have suggested alternative options for the assessment and management of the patient in this case. These suggestions fail to account for the real-world context in which the case occurred. For example, an orthopedic surgeon, with knowledge of the previous examination findings, did perform an examination of the patient and did not recommend that magnetic resonance imaging be taken.

We believe this error in analysis is also reflected in some of the literature that Fludder and Keil have chosen to support their assertions. The paper on the utility of superficial abdominal reflexes in the diagnosis of scoliosis by Fujimori *et al.* [4] is one such example. This paper is a retrospective review of 93 patients (which included only 1 infant) who were scheduled for corrective surgery in a tertiary care setting. We would caution against attempting to apply diagnostic test accuracy statistics derived from a highly specialized patient population in a tertiary care setting to a primary care setting such as the one in our case. Studies that include more representative samples would strengthen Fludder and Keil's argument.

There are inherent strengths and weakness associated with a case study design. We have provided the reader with all relevant information to judge the case presentation and have been transparent with the limitations associated with this case study.

Sincerely,

Jeb McAviney and Benjamin T. Brown

Acknowledgements
Not applicable.

Author contributions
Both authors were involved in the drafting, write-up, and review of the letter. Both authors read and approved the final manuscript.

Funding
Not applicable.

Availability of data and materials
Not applicable.

This comment refers to the article available online at https://doi.org/10.1186/s13256-022-03560-y.

*Correspondence: benjamin.brown@mq.edu.au

[2] Department of Chiropractic, Faculty of Medicine, Health and Human Sciences, Macquarie University, Macquarie Park, Australia
Full list of author information is available at the end of the article

Declarations

Ethics approval and consent to participate
Not applicable.

Consent for publication
Not applicable.

Competing interests
JM is the owner and director of ScoliCare, a company that provides treatment and educational products for practitioners, and patients with scoliosis. JM is the creator of the ScoliBrace orthosis. BTB is a paid employee of ScoliCare. There are no other conflicts of interest declared.

Author details
[1]ScoliCare, Kogarah, Australia. [2]Department of Chiropractic, Faculty of Medicine, Health and Human Sciences, Macquarie University, Macquarie Park, Australia.

Received: 23 September 2022 Accepted: 8 October 2022
Published online: 05 December 2022

References

1. Scoliosis Research Society. Terminology Committee and Working Group on Spinal Classification Revised Glossary of Terms. 2000 [cited 2022 22nd of September, 2022]; Available from: https://www.srs.org/professionals/online-education-and-resources/glossary/revised-glossary-of-terms.
2. Watson GH. Relation between side of plagiocephaly, dislocation of hip, scoliosis, bat ears, and sternomastoid tumours. Arch Dis Child. 1971;46:203–10.
3. James JI, Lloyd-Roberts GC, Pilcher MF. Infantile structural scoliosis. J Bone Joint Surg Br. 1959;41:719–35.
4. Fujimori T, Iwasaki M, Nagamoto Y, Sakaura H, Oshima K, Yoshikawa H. The utility of superficial abdominal reflex in the initial diagnosis of scoliosis: a retrospective review of clinical characteristics of scoliosis with syringomyelia. Scoliosis. 2010;5:17.

Publisher's Note