Letter to Editor

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Comments on "Surgical treatment of unilateral lambdoid craniosynostosis with revolution spiral osteotomy: a case report"

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To the Editor,

We read with great interest the case report by Silva Neto et al. describing the surgical management of presumed unilateral lambdoid craniosynostosis using a revolution spiral osteotomy associated with absorbable plates. The authors are to be congratulated for sharing their experience with a rare and challenging condition, as well as for presenting an innovative technical approach for posterior cranial vault remodeling. Reports such as this are valuable because they stimulate discussion on both diagnosis and surgical strategy in uncommon forms of craniosynostosis.

At the same time, we would like to respectfully offer a few comments that may further enrich the interpretation of this case. True posterior plagiocephaly caused by unilateral lambdoid synostosis is exceptionally rare, and for this reason a particularly careful distinction from deformational plagiocephaly is essential. In our view, the diagnostic documentation presented in the article could be strengthened to more clearly support right lambdoid synostosis.

From an imaging perspective, the article includes limited tomographic illustration, and the published material does not seem to unequivocally demonstrate fusion of the right lambdoid suture. In such cases, three-dimensional CT reconstruction can be especially helpful, both to document the site of synostosis and to allow readers to better appreciate the anatomical basis for the diagnosis. Because lambdoid synostosis is so uncommon, more complete radiological demonstration would significantly reinforce the message of the report.

We also believe that additional detail in the clinical history would be valuable. Specifically, it would be helpful to know whether the cranial asymmetry had been noticed since birth. This point is important because congenital onset tends to support true craniosynostosis, whereas postnatal development may

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raise the possibility of a positional or deformational process. Similarly, although the authors describe relevant findings, the clinical images do not clearly allow identification of the classical external features associated with true posterior plagiocephaly, such as mastoid prominence, skull-base asymmetry, characteristic ear displacement, and contralateral parietal bossing.

Another aspect that deserves consideration is the possibility of pseudo-ridging. Deformational plagiocephaly may occasionally present with a palpable ridge that can resemble the bony prominence associated with a fused suture. For this reason, when the diagnosis is unilateral lambdoid synostosis, correlation among physical examination, detailed imaging, and, ideally, 3D reconstruction becomes especially important. In our opinion, this distinction would be particularly relevant in the present report, since the published photograph alone does not make it easy for the reader to identify the clinical hallmarks of true posterior plagiocephaly or to confidently exclude a postural deformity.

With regard to the surgical technique, the use of the revolution spiral osteotomy is interesting and certainly adds originality to the case. We would, however, appreciate further clarification regarding the rationale for using absorbable plates in association with this technique. In cases of true posterior craniosynostosis, correction may often be achieved either by distraction through a linear osteotomy and gradual advancement—accepting the need for distractor removal after a few months—or by a more conventional unilateral osteotomy and advancement stabilized with absorbable fixation. Within the context of the spiral osteotomy construct itself, the precise additional contribution of absorbable plates is not entirely clear, and a more detailed explanation of this choice would be educational for readers.

This question is relevant because broader craniosynostosis experience has consistently shown that lambdoid synostosis represents only a small fraction of surgically treated cases, underscoring the importance of rigorous diagnostic confirmation before proposing technical innovations in this subgroup. Likewise, the literature on posterior cranial vault expansion highlights the importance of detailed imaging analysis and individualized surgical planning in posterior cranial deformities.

In summary, we believe this case report makes a welcome contribution by drawing attention to a rare pathology and by presenting a creative operative solution. We respectfully suggest, however, that stronger radiological demonstration of the lambdoid synostosis, more explicit information regarding the onset of the deformity, and a clearer discussion of the differential diagnosis with deformational plagiocephaly would further strengthen the report. Additional clarification regarding the role of absorbable plates in the spiral osteotomy technique would also be of considerable interest to readers.

Sincerely,

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DISCLOSURES

Conflict of interest

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Artificial intelligence

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