



BAISHIDENG PUBLISHING GROUP INC

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242 Fax: +1-925-223-8243

E-mail: bpgooffice@wjgnet.com <http://www.wjgnet.com>

Name of Journal: *World Journal of Radiology*

ESPS Manuscript NO: 22502

Manuscript Type: DIAGNOSIS ADVANCES

Response to Reviewers

Manuscript Number 22502

Manuscript Title: Magnetic Resonance Imaging Differential Diagnosis of Brainstem Lesions in children

Reviewer 02346872

Comments To Authors: This review discussed the differential diagnosis of brainstem lesions among vascular, toxico-metabolic, infective-inflammatory, degenerative and neoplastic processes. This paper proposed a systemic, general and concise statement for the series disease. This review is helpful for the clinician and medico.

Response: We thank the reviewer for the positive comments. During revision of the manuscript we noticed that a rare and probably under-reported metabolic condition in children called Molybdenum Cofactor Deficiency was not cited. A brief description of this condition has been added in the Degenerative Disease section.

Reviewer 02348457

Comments To Authors: In this review, the authors described the major differential diagnosis of brainstem lesions in children. In clinical practice, these conditions are not frequent, but when occur, either isolated or in association with cerebellar and supratentorial lesions, the correct diagnosis can be challenging in the pediatric population. The authors summarized crucial structural organization and signal intensity that are crucial for the differential diagnosis and establishment of prognosis of pathologies with involvement of the brainstem. The paper is well-written. But the author might add more advanced MRI techniques, such as DWI, SWI, DTI, MRS, etc.

Response: We thank the reviewer for the positive comments. Diffusion weighted images (DWI) are presented in Figure 8. MR 1H spectroscopy was performed for the patient presented in Figure 11 (inlet in panel A). Also, following the reviewer comment, we added a CBV map and 1H spectroscopy in Figure 15.

We agree with the reviewer that more advanced MRI techniques might be presented. These techniques are, however, only used whenever the morphological MRI pattern, based on location and distribution of lesions, signal intensity and contrast enhancement, is not conclusive, and are added to the conventional protocol to narrow the differential diagnosis.

On this regard, it must be taken into consideration that the morphological MR pattern of lesions (especially for the brainstem) remains crucial to approach differential diagnosis.

Reviewer 02831834

Comments To Authors: This is a good review article of differential diagnosis of brainstem lesions in pediatric patients presented with many interesting cases and detailed MRI protocol. It is worth reading.

Response: We thank the reviewer for the positive comments. No changes were applied to the manuscript.

To the Editor:

- English Language Minor Editing has been cross-checked by a native speaker in our institution.