Published Ahead of Print on September 15, 2020 as 10.1212/WNL.0000000000010835

Neurology®
The most widely read and highly cited peer-reviewed neurology journal
The Official Journal of the American Academy of Neurology

AMERICAN ACADEMY OF NEUROLOGY®

Neurology Publish Ahead of Print
DOI: 10.1212/WNL.0000000000010835

"MRI findings in a child with Neuromelioidosis"

Authors: Kaushik Maulik[1], MD; Gulrej Nisar Shaikh[1], MBBS; Ananthanarayanan Kasinathan[1], DM; Venkatesh Chandrasekaran[2], MD; Narayanan Parameswaran[3], MD; Niranjan Biswal[3], MD;

1. Senior Resident, Department of Pediatrics, Women and Children Hospital, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India-605006.
2. Junior Resident, Department of Pediatrics, Women and Children Hospital, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India-605006.
3. Assistant Professor, Department of Pediatrics, Women and Children Hospital, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India-605006.
4. Associate Professor, Department of Pediatrics, Women and Children Hospital, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India-605006.

5. Professor, Department of Pediatrics, Women and Children Hospital, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India-605006.
6. Professor, Department of Pediatrics, Women and Children Hospital, Jawaharlal Institute of Postgraduate Medical Education and Research, Puducherry, India-605006.

Disclosures: The authors report no disclosures relevant to the manuscript.

Corresponding Author: Dr. Narayanan Parameswaran (narayanan.p@jipmer.edu.in)

Study Funding: No targeted funding reported.

Source(s) of support (grants, equipments, drugs, etc) (if any): None

Competing Interests: None

Consent: Written informed consent obtained from parents.

Word count: 98

Character count of title: 07

No. of figures: 01

No. of Tables: 0

No. of references: 01

Acknowledgement: None

Keywords: MRI; Neuromelioidosis.

Search terms: MRI; Melioidosis.

Manuscript

A 10-year-old boy presented with a 2-week history of fever, headache and altered mentation. Bulbar palsy, 2/5 right hemiparesis, meningeal signs were evident. CSF was notable for lymphocytosis, high protein, normal glucose and negative tuberculosis workup. MRI demonstrated hyperintensity along the white matter tracts suggestive of Neuromelioidosis (Figure 1) and was confirmed by antibody positivity to Indirect haemagglutination for *Burkholderia pseudomallei.* Child responded to six weeks induction therapy with Meropenem and is currently on eradication treatment with doxycycline. Propensity for spread along the white matter tract and brainstem neurotropism is the hallmark of Neuromelioidosis, especially the encephalomyelitis type[1].

Appendix 1: Authors

Name	Location	Contribution
Kaushik Maulik	Department of Pediatrics, JIPMER, Puducherry, India	Patient management, literature review and initial draft manuscript preparation
Gulrej Nisar Shaikh	Department of Pediatrics, JIPMER, Puducherry, India	Patient management, literature review and initial draft manuscript preparation
Ananthanarayanan Kasinathan	Department of Pediatrics, JIPMER, Puducherry, India	Concept and design of the study, critical review of manuscript, and final approval of the version to be published
Venkatesh Chandrasekaran	Department of Pediatrics, JIPMER, Puducherry, India	Concept and design of the study, critical review of manuscript, and final approval of the version to be published
Narayanan Parameswaran	Department of Pediatrics, JIPMER, Puducherry, India	Concept and design of the study, critical review of manuscript, and final approval of the version to be published
Niranjan Biswal	Department of Pediatrics, JIPMER, Puducherry, India	Clinician-in-charge, concept and design of the study, critical review of manuscript, and final approval of the version to be published.

References

1. Wiersinga WJ, Virk HS, Torres AG, et al. Melioidosis. Nat Rev Dis Primers. 2018;4:17107.

Figure title: MRI brain images of index child with neuromelioidosis

Figure legends

Axial T2 weighted Brain MRI reveals hyperintensities in the left post central gyrus and centrum semiovale [a], left posterior limb of internal capsule [b], midbrain tegmentum [c], pons, middle cerebellar peduncle and dentate nucleus of cerebellum[d]. Sagittal T2 spine reveals brainstem and cervical spine hyperintensities. Spread along the white matter tracts across longitudinal and commissural fibers is noted in T2 coronal view[f]