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[CRANIAL MAGNETIC RESONANCE IMAGING IN NEUROMELIOIDOSIS]

[Dr Suprava Naik, AIIMS Bhubaneswar]
[Dr Manoj Kumar Nayak, Dr Sanjeev Kumar Bhoi, Dr Menka Jha, AIIMS Bhubaneswar]

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INTRODUCTION

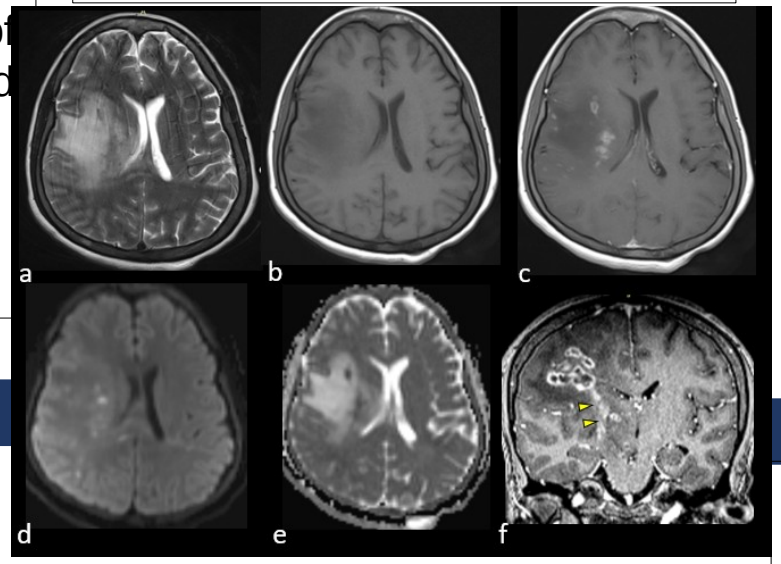
Melioidosis is a bacterial infection caused by Burkholderia *pseudomallei*. Neurological involvement is rare, but has a high mortality. [1,2] A high index of clinical suspicion is needed with specific MRI finding especially in regions endemic to both TB and melioidosis.

AIMS / OBJECTIVES

To evaluate the MRI findings in neuromelioidosis.

MATERIALS / METHODS

We collected the data from five melioidosis patients having neurological involvement. Clinical, biochemical, and imaging findings were analyzed.



Brain Abscess due to melioidosis in a 23 Y/F. T2W MRI (a) shows multiple small ill defined lesions, hypointense on T1WI (b) in right frontotemporal lobe. The lesions are showing nodular and peripheral contrast enhancement (c) and central diffusion restriction on DWI and ADC (d,e) suggestive of multiple small abscesses. Note the extension of abscess along right corticospinal tract (f)

RESULTS & DISCUSSION

Four cases had brain abscess and one had meningitis. There were multiple micro-abscesses around the larger abscess. In two cases, the lesion was extending up to the brainstem through the corticospinal tract. The trigeminal nucleus was involved in one patient.

The most common imaging finding in CNS melioidosis is cerebral abscess; however, encephalitis, meningitis, or subdural abscesses can be seen. Multiple micro-abscesses around the main abscess, propensity to involve and extend along the white matter tract, involvement of trigeminal nerve nucleus are features that favors a diagnosis of melioidosis.

CONCLUSION

Neuromelioidosis can be fatal if not treated early. A high index of suspicion should be given if there are multiple micro-abscesses in the brain, extension along the white matter tract, and involvement of the trigeminal nerve.

References:

1. Currie BJ, Fisher DA, Howard DM, Burrow JN. Neurological melioidosis. Acta Trop 2000;74:145-51.
2. Hsu CC, Singh D, Kwan G, Deuble M, Aquilina C, Korah I, *et al*. Neuromelioidosis: Craniospinal MRI findings in Burkholderia pseudomallei infection. J Neuroimaging 2016;26:75-82.