

# Case Report: Meningitis

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## Sequence details

Multiplanar T1, T2 and fat suppressed T2-weighted images were acquired together with multiplanar post Gadolinium enhanced T1-weighted images. The images were acquired on our 3T MAGNETOM Verio.

## Image findings

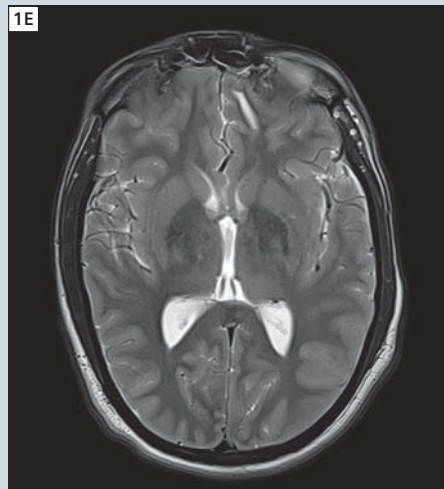
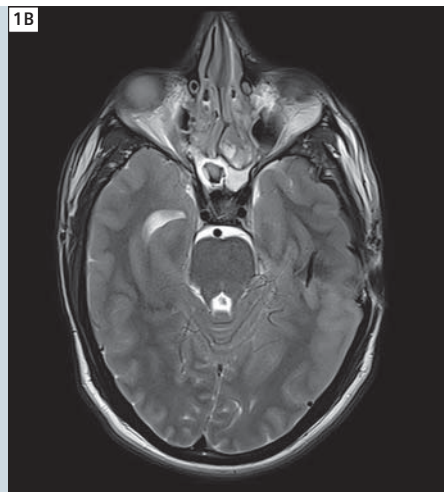
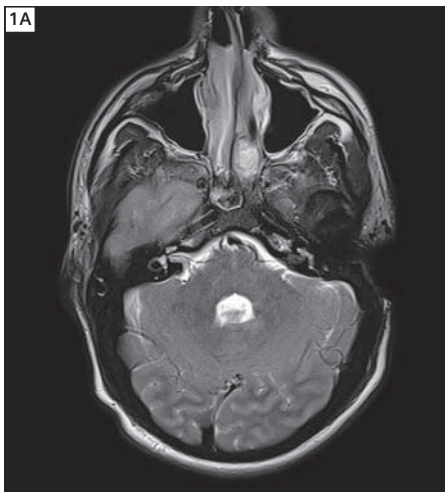
Midline is central. There is ventriculomegaly involving the lateral and third ventricles with subtle subependymal spread of CSF and sulci effacement

consistent with hydrocephalus. There is a defect in the floor of the left anterior cranial fossa with a 3.5 x 0.8 cm encephalocele that extends inferiorly to the nasopharynx. Peripherally enhancing 2 x 1 cm meningocele is seen extending inferiorly posterior to the hard palate. This meningocele contains complex fluid suspicious for infection / meningitis. Extensive mucosal thickening is seen in the remaining paranasal sinuses. In addition there is a band of oedema in

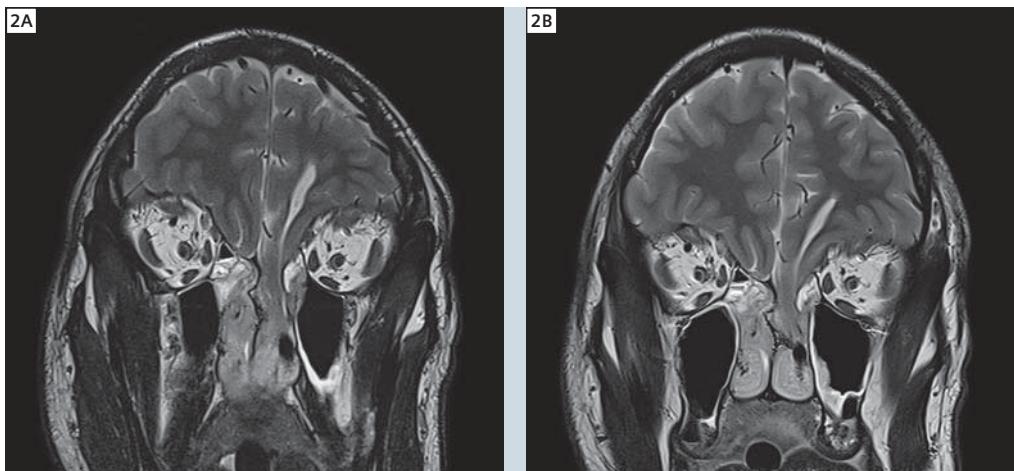
the anteroinferior left frontal lobe but no enhancing intra-axial mass is seen. No other abnormality is demonstrated in the remaining brain.

## Conclusion

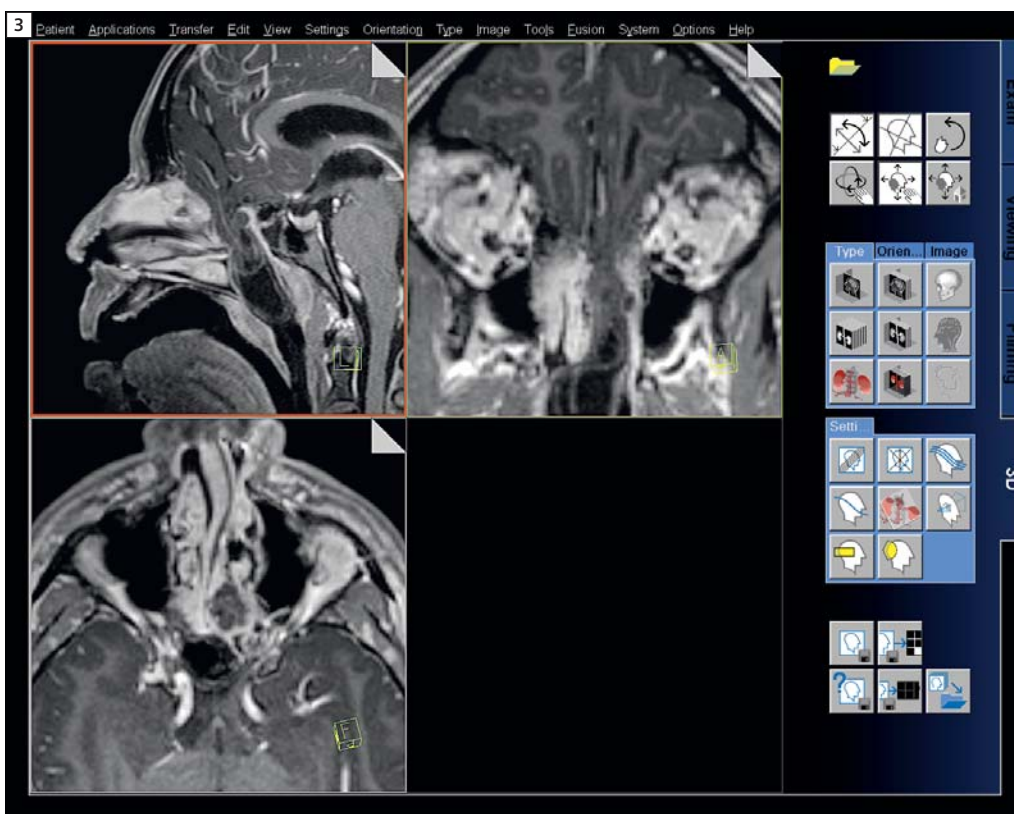
Left anterior cranial fossa bony defect is seen, through this passes a 3 x 1 cm left frontal encephalocele with meningocele extending more inferiorly. This extends to the posterior margin of the hard palate. CSF within the meningocele has peri-



**1** Transversal T2-weighted TSE, demonstrating a defect in the floor of the left cranial anterior fossa: TR 3500 ms, TE 92 ms, slice thickness 3 mm, FOV 180 x 180 mm, matrix 314 x 448.



**2** Coronal T2-weighted TSE; the encephalocele is well delineated, extending to the nasopharynx: TR 2600 ms, TE 101 ms, slice thickness 2 mm, FOV 180 x 180 mm, matrix 314 x 448.



**3** Thin-slice multiplanar reconstruction of post-contrast 3D T1-weighted MPRAGE examination; peripheral contrast-enhancement of the meningocele and complex fluid contains are suspicious for infection / meningitis.



Dr. Richard O'Sullivan and Kirralie Lyford.

peripheral type enhancement, strongly suspicious for meningitis at this site. There is minor oedema on the anteriorinferior left frontal lobe but no enhancing intracranial abscess is identified. This is associated with extensive mucosal thickening throughout the ethmoid sinuses and to a lesser extent in the sphenoid and maxillary antra. There is mild hydrocephalus with widespread sulcal effacement, ventriculomegaly and subtle subependymal spread of CSF.

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