Case 8867

Obstetric MRI
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Patient: 33 years, female

Clinical History:
A 33-year-old lady with bad obstetric history, currently 27 weeks of gestations was referred to antenatal MRI.

Imaging Findings:
Her MRI revealed a bizarre ill-defined right temporal lobe mass with few tiny calcifications, moderate ventricular haemorrhages with hydrocephalus. She underwent medical termination of pregnancy, and histology confirmed the diagnosis of malignant rhabdoid tumor (Fig. 1 a, b).

Discussion:
Sonographic evaluation of the fetal CNS is limited by the nonspecific appearance of some anomalies; technical factors that limit resolution of the side of the brain near the transducer and ossification, which obscures visualisation of posterior fossa structures. Magnetic resonance imaging allows for direct multiplanar visualisation of the brain parenchyma and thus allows for detailed evaluation of the CNS anatomy in a manner not possible with sonography [1].

Malignant rhabdoid tumour (MRT) of a CNS is a rare, highly aggressive tumour with mean survival of 10 months after its diagnosis. These tumours are reported in young children, mean age at diagnosis of 3.5 years, with a range of 2 to 13 years. Rhabdoid tumours occur equally in males and females. The location can be supratentorial, intraventricular, and infratentorial. Differential diagnoses include rhabdomyosarcoma, neuroblastoma, PNET and lymphoma, and final diagnosis relies on the histology. CT and magnetic resonance (MR) imaging appearances of CNS rhabdoid tumours have described various features such as calcification and bleeding as seen in our case [2]. Other features include post-contrast enhancement and bony involvement. MRI is accurate in revealing exact extent and complications. MR imaging characteristics such as calcifications and intravascular haemorrhages could point toward the diagnosis of the malignant rhabdoid tumour.

Differential Diagnosis List: Malignant rhabdoid tumour-cerebral neoplasm

Final Diagnosis: Malignant rhabdoid tumour-cerebral neoplasm

References:
augments sonographic diagnosis. Radiology 204:635–642 (PMID: 9280237)
Description: Obstetric MRI; T2W axial view in a 27 weeks of gestation showing a bizarre ill-defined right occipito-temporal lobe mass with few tiny T2W hypointense foci (probable calcifications). There is mass effect on the ventricular system with mild leftward midline shift. Layering hypointensity within the left occipital horn suggest ventricular haemorrhages. Mild dilatation of ventricular system is noted.

Origin:
Description: Obstetric MRI; T2W coronal view in a 27 weeks. Ventricular haemorrhage and dilations can be noted. Origin: