

Answer to Medical Quiz : Image - 1

Answer 1: T2WI and Flair MRI GRE showing mixed signal intensity area with internal core of hypo intensity at the left caudate nucleus with ventricular extension and mild mass effect.

Answer2: Subacute hematoma at the head of the caudate nucleus with ventricular extension possibly caused by untreated postpartum pre-eclampsia.

Answer3: Antihypertensive, Steroid, Nimodipine, Magnesium, Diuretics, Broad spectrum antibiotic and supportive treatment.

Answer 4: Hemorrhage is best detected with gradient-echo (GRE) T2*-weighted sequences, because of their magnetic susceptibility effects.

Review:

Post-partum pre-eclampsia is a rare disease. A study in US showed the incidence of postpartum preeclampsia to be 5.7%¹. Postpartum preeclampsia may be associated with a higher risk of maternal morbidity than preeclampsia with antepartum onset. The diagnosis of postpartum preeclampsia should be considered in women with new-onset hypertension 48 hours to 6 weeks after delivery. Most women with delayed-onset postpartum preeclampsia present within the first 7 to 10 days after delivery. Older maternal age, black race, maternal obesity, primigravida and cesarean delivery are all associated with a higher risk of postpartum preeclampsia².

Patients present most frequently with new onset hypertension with proteinuria and neurologic symptoms, typically headache, change in vision. Diagnosis is confirmed after doing investigation of blood and urine. The cornerstones of treatment include the use of antihypertensive agents, magnesium, and diuresis. Untreated postpartum preeclampsia, can lead to eclampsia, intracranial hemorrhage, reversible cerebral vasoconstriction syndrome and HELLP syndrome³.

References:

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Answer to Medical Quiz : Image - 2

Answer 1. Adrenal glands are enlarged and there is splenomegaly.

Answer 2. Adrenal tuberculosis, histoplasmosis (other systemic fungal infection), lymphoma (metastatic neoplasm or primary adrenal tumours, only occasionally bilateral).

Answer 3. Fine needle aspiration cytology (FNAC) from the adrenal glands and culture of aspirates.

Review:

Histoplasmosis is a systemic fungal infection caused by *Histoplasma capsulatum*, which is abundantly found at areas rich in bird and bat excreta. Air-borne conidia enters through inhalation; remains asymptomatic or mild respiratory symptoms may occur in immunocompetent patients but dissemination may occur in patients with immunodeficiency, specially, those infected by human immunodeficiency virus (HIV) or having acquired immunodeficiency syndrome (AIDS). Disseminated histoplasmosis frequently involves the liver, spleen, bone marrow, lymph nodes and suprarenal glands.¹ FNAC remains an important diagnostic tool for histoplasmosis and aspirates may require special stains and be cultured. Serology should be interpreted with caution, specially, in endemic areas. Treatment includes amphotericin B followed by itraconazole and the duration depends on severity of the disease and host immune status.² In tropical and subtropical countries, tuberculosis fits best to the given scenario, then systemic fungal

infections and malignancy. The index case was disseminated histoplasmosis and HIV status was negative. Neutrophilic leukocytosis and negative MT were in favour of fungal infections, though MT may remain negative in disseminate tuberculosis cases. Histoplasmosis is an under-recognized cause for adrenal enlargements in Bangladesh but in recent years, increasing numbers of cases are being reported.³ Physicians should have a high index of suspicion for early identification of cases.

References:

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2. Wheat LJ, Freifeld AG, Kleiman MB, Baddley JW, McKinsey DS, Loyd JE, et al; Infectious Diseases Society of America. Clinical practice guidelines for the management of patients with histoplasmosis: 2007 update by the Infectious Diseases Society of America. *Clin Infect Dis* 2007 Oct;45(7):807-25. <https://doi.org/10.1086/521259> PMID:17806045
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