**CASE REPORT-1**

AE – Hepatic encephalopathy due to hypokalemic alkalosis

Analysis : Expected, Possible

**Comments:**

Brisk diuresis in this patient resulted in hypokalemic alkalosis which precipitated hepatic encephalopathy. NH3 produced by gut bacteria is not detoxified by cirrhotic liver,hence blood NH3 tends to raise. NH3 is also partly ionized to NH4+ in blood and excreted in urine. During alkalosis NH3 ionises to lesser extent raising the blood NH3 furthur. Raised level of NH3 enters brain to cause encephalopathy.

**Treatment:**

* Diuretic should be with held till the fluid electrolyte and acid-base balance is restored.
* IV Kcl along with normal saline hasten recovery from hypokalemia and alkalosis
* Oral Lactulose reduces blood NH3 by producing acid degradation products in the gut which covert NH3 into poorly absorbed NH4 ions.
* Suppressing NH3 producing gut bacteria by oral Rifaximine/oral Neomycin .

**CASE REPORT-2**

AE: Acute urinary retention.

Analysis : Expected, Probable

**Comments:**

Promethazine is a H1—anti- histaminic, anti-vertigo with high anti- muscarinic action . Anti-muscarinic drugs cause urinary retention in old males with prostatic hypertrophy. Hence he should be prescribed Cinnarizine an anti-histaminic, anti-vertigo drug with low anti –muscarinic activity.

**CASE REPORT-3**

AE : Acute muscular dystonia

Analysis : Expected, Probable

**Comments:**

The quack had given Inj.Metoclopramide. Acute dystonia, an extrapyramidal motor reaction is caused by blocked of D2 receptors in CNS. Children and elderly are more sensitive to this side effect. Drug induced extrapyramidal motor reactions can be reversed by centrally acting anticholinergic drugs.

IM injection of Promethazine which has anticholinergic, anti-histaminergic, sedative and ani-emetic can reverse the acute dystonia rapidly within 15 to 30 min.

Domperidone crosses blood-brain barrier poorly and hence extrapyramidal side effects are rare. Domperidone is the preferred anti-emetic in children.