

**QUESTION**

1. A patient with a long history of alcohol abuse presents with a severe headache, vomiting, and confusion. The patient's vital signs are stable, but the physical examination reveals tachycardia and hyperreflexia. The patient's laboratory studies show a serum sodium level of 120 mEq/L, a serum glucose level of 100 mg/dL, and a serum calcium level of 8.5 mg/dL. The patient's arterial blood gas (ABG) shows a pH of 7.35, a partial pressure of carbon dioxide (PCO<sub>2</sub>) of 35 mmHg, and a partial pressure of oxygen (PO<sub>2</sub>) of 100 mmHg. The patient's anion gap is 18 mEq/L. The patient's urine toxicology screen is positive for alcohol. The patient's medical history is significant for chronic alcohol abuse, hypertension, and type 2 diabetes mellitus. The patient is currently on lisinopril and metformin. The patient's last alcohol consumption was 24 hours prior to presentation. The patient's family reports that the patient has been drinking heavily for several days. The patient's physical examination is otherwise unremarkable. The patient's electrocardiogram (ECG) shows a normal sinus rhythm. The patient's chest X-ray is normal. The patient's head CT scan is normal. The patient's lumbar puncture shows a normal cerebrospinal fluid (CSF) profile. The patient's serum lactate level is 2.5 mmol/L. The patient's serum ammonia level is 45 μmol/L. The patient's serum salicylate level is 0.5 mg/dL. The patient's serum salicylate level is 0.5 mg/dL. The patient's serum salicylate level is 0.5 mg/dL.

**ANSWER**

1. The patient's presentation is consistent with alcohol withdrawal. The patient's symptoms, including severe headache, vomiting, and confusion, are characteristic of alcohol withdrawal. The patient's tachycardia and hyperreflexia are also consistent with alcohol withdrawal. The patient's laboratory studies show a serum sodium level of 120 mEq/L, a serum glucose level of 100 mg/dL, and a serum calcium level of 8.5 mg/dL. The patient's arterial blood gas (ABG) shows a pH of 7.35, a partial pressure of carbon dioxide (PCO<sub>2</sub>) of 35 mmHg, and a partial pressure of oxygen (PO<sub>2</sub>) of 100 mmHg. The patient's anion gap is 18 mEq/L. The patient's urine toxicology screen is positive for alcohol. The patient's medical history is significant for chronic alcohol abuse, hypertension, and type 2 diabetes mellitus. The patient is currently on lisinopril and metformin. The patient's last alcohol consumption was 24 hours prior to presentation. The patient's family reports that the patient has been drinking heavily for several days. The patient's physical examination is otherwise unremarkable. The patient's electrocardiogram (ECG) shows a normal sinus rhythm. The patient's chest X-ray is normal. The patient's head CT scan is normal. The patient's lumbar puncture shows a normal cerebrospinal fluid (CSF) profile. The patient's serum lactate level is 2.5 mmol/L. The patient's serum ammonia level is 45 μmol/L. The patient's serum salicylate level is 0.5 mg/dL. The patient's serum salicylate level is 0.5 mg/dL. The patient's serum salicylate level is 0.5 mg/dL.

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