

QUESTION

1. A patient with a long history of alcohol abuse presents with a 2-week history of weight loss, weakness, and confusion. On admission, the patient is found to have a serum glucose of 100 mg/dL, serum sodium of 125 mEq/L, and serum bicarbonate of 18 mEq/L. The patient's arterial blood gas (ABG) shows a pH of 7.35, a partial pressure of carbon dioxide (PCO₂) of 38 mmHg, and a partial pressure of oxygen (PO₂) of 100 mmHg. The patient's anion gap is 16 mEq/L. The patient's urine is found to have a glucose of 2+ and a ketone of 2+.

Parameter	Value
Serum glucose	100 mg/dL
Serum sodium	125 mEq/L
Serum bicarbonate	18 mEq/L
ABG pH	7.35
ABG PCO ₂	38 mmHg
ABG PO ₂	100 mmHg
Anion gap	16 mEq/L
Urine glucose	2+
Urine ketone	2+

2. The patient's physical examination is notable for tachycardia, tachypnea, and hyperreflexia. The patient's laboratory studies show a serum lactate of 10 mmol/L, a serum ammonia of 100 μmol/L, and a serum salicylate level of 0.1 mg/dL. The patient's electrocardiogram (ECG) shows a sinus tachycardia with a heart rate of 120 beats per minute.

ANSWER



3. The patient's physical examination is notable for tachycardia, tachypnea, and hyperreflexia. The patient's laboratory studies show a serum lactate of 10 mmol/L, a serum ammonia of 100 μmol/L, and a serum salicylate level of 0.1 mg/dL. The patient's electrocardiogram (ECG) shows a sinus tachycardia with a heart rate of 120 beats per minute.