

Clinica-Medical Image

Heart Block in Severe Acidosis

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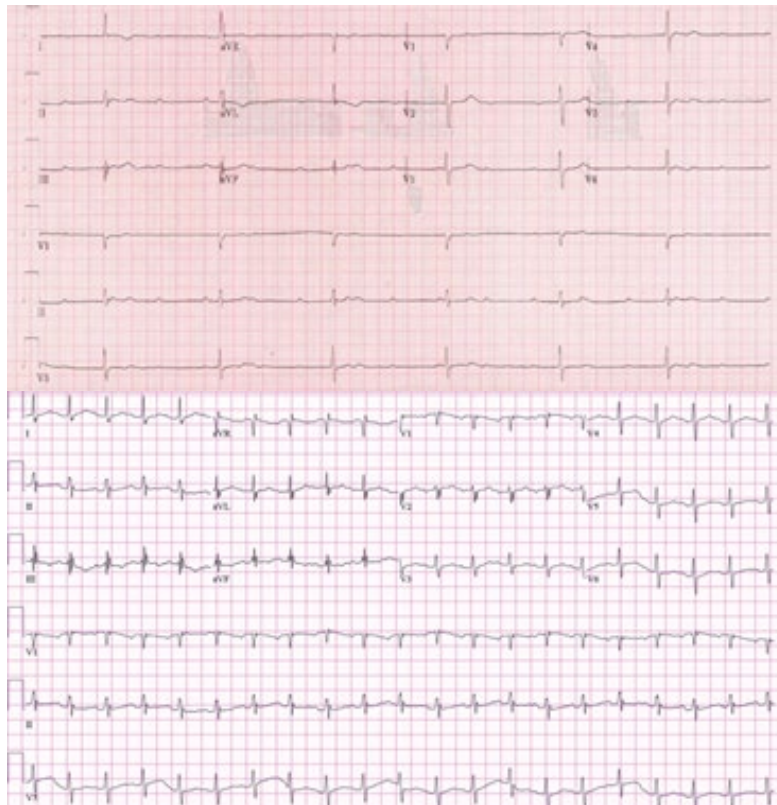


Figure 1: Electrocardiogram (EKG) was obtained which revealed a complete heart block.

Figure 2: Sinus tachycardia.

Keywords: Heart; Blood; EKG

Introduction

A 49-years old female with past medical history of hypertension, end stage renal disease on peritoneal dialysis and congestive heart failure was admitted to the medical intensive care unit for septic shock from peritonitis and severe acidosis. She was hemodynamically unstable requiring a vasopressor support to maintain the mean arterial pressure. Arterial blood glass revealed a pH of 6.98, pCO₂ of 16 mm Hg, pO₂ of 114 mm Hg and bicarbonate of 3 mmol/L. Electrocardiogram (EKG) was obtained which revealed a complete heart block (Figure 1) as compared to the previous EKG (Figure 2). The rationale behind the EKG change is that acidic environment alters the function of the Atrio Ventricular (AV) node by slowing the conduction and prolonging the refractory period leading to complete AV conduction block.

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