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I enjoyed reading about your patient and their care. We experience abnormal electrolytes in relationship to many cardiac diseases. Understanding the importance and role of potassium and magnesium can prevent life-threatening events.

Magnesium aids in ventricular repolarization. Elevated magnesium is associated with more prolonged QT and JT intervals. (Noordam et al., 2019). Hypomagnesemia can impair the sodium-potassium pump causing increased movement of potassium out of the cells. Potassium levels affect the function of the ventricle leading to higher risks of cardiac arrest.

Hyperkalemia causes prolonged QRS duration, while hypokalemia is associated with prolonged QT intervals and fibrillation (Saxena et al., 2020). Monitoring and maintaining a balance in electrolytes can prevent cardiac events or worsen cardiac arrhythmias.

### Reference

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