

Title: Dead or Alive: CPR Induced Consciousness Amidst Asystolic Cardiac Arrest Managed by Paramedics in the Field

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Background: CPR Induced Consciousness (CPRIC) is a rare phenomenon, characterized by signs of consciousness during CPR for cardiac arrest. Although associated with favorable outcomes, CPRIC presents unique challenges. We present a case of CPRIC managed by paramedics in the field, resulting in neurologically intact survival.

Case: A 78-year-old male with a history of coronary artery disease presented to EMS after an unwitnessed cardiac arrest with bystander CPR. On arrival, he groaned during chest compressions, pulselessness was confirmed, and CPR continued. Subsequently, he pushed responders away, groaned, and opened his eyes. A rhythm check revealed pulselessness, asystole and a cessation of movement. CPR resumed and the patient exhibited purposeful movements and the ability to follow commands. Asystole and wide-complex PEA were consistently observed during rhythm checks. Ketamine was administered for agitation and ACLS care was continued with an automated CPR device before transport to a facility with extracorporeal cardiopulmonary resuscitation and cardiac catheterization capabilities. In the ED, ROSC was achieved, and a third-degree heart block was discovered, leading to transvenous pacemaker placement. At last follow up, the patient was extubated in the ICU without signs of neurological deficit.

Discussion: CPRIC management lacks standardized guidelines, with protocols varying widely. Treatment involves addressing the cardiac arrest and managing the CPRIC. A significant concern is the potential hemodynamic impact of sedatives, which may negatively affect ROSC and long-term neurological sequelae. In this case, Ketamine was administered as a sedating agent as paramedics in this system follow statewide guidelines that specifically address the management of CPRIC with Ketamine due to its lower likelihood of hemodynamic compromise compared to alternative agents. In summary, this case highlights the complexities of managing CPRIC and emphasizes the need to integrate standard arrest management with appropriate sedation and restraint. Further research is crucial to assess the effectiveness and choice of chemical sedation for optimizing both short and long-term outcomes.