

Intravenous Adrenaline or Vasopressin in Sudden Cardiac Arrest: A Literature Review

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Abstract

Introduction: The chain of survival concept implies that provision of early access, early advanced care, including early intravenous drugs would improve survival in sudden cardiac arrest. Intravenous adrenaline (epinephrine) has been used as the drug of choice since 1906. What is the evidence for its effectiveness? Is vasopressin a better alternative? **Methods:** We performed a systematic literature search in order to answer these questions. Evidence from the clinical trials that have been conducted on this subject was reviewed. **Results:** Experimental evidence confirms the beneficial effect adrenaline has on coronary perfusion pressure. However, adrenaline has not been shown conclusively to improve survival in clinical trials. Extensive trials have also failed to show any benefit of high-dose adrenaline over standard doses. Vasopressin seems to be more effective than adrenaline in animal studies for treatment of cardiac arrest due to resistant ventricular fibrillation. However, it has yet to be proven to be superior to adrenaline in clinical trials. **Conclusion:** More research is needed into this area, especially randomised controlled trials studying the effectiveness of vasopressin. Meanwhile, in order to improve survival from sudden cardiac arrest, continuing effort should be made to achieve early initiation of cardiopulmonary resuscitation, early defibrillation and early advanced care.

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