

Short Communication

Features of Resuscitation That are Worth Mentioning: How Long Can Resuscitation Reasonably Be Carried Out?

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Abstract

Current resuscitation guidelines provide a structured framework for emergency interventions, yet they cannot account for every clinical nuance, particularly in seemingly hopeless cases. Drawing from extensive firsthand experience in intensive care and emergency medicine, this article presents two cases of prolonged resuscitation exceeding 90 minutes, culminating in full recovery without cerebral deficits. Both cases demonstrated successful defibrillation only after intravenous administration of potassium chloride, following exhaustion of standard therapeutic measures. These experiences suggest that, provided effective cardiac massage and ventilation are maintained, the window for successful resuscitation can be far wider than commonly assumed. Furthermore, in cases of persistent asystole, rapid deployment of a temporary pacemaker may offer an additional lifesaving measure. This article argues for greater flexibility and clinical judgment during resuscitation efforts, emphasizing that strict adherence to protocols alone may limit patient survival opportunities.

Introduction

In the new European guidelines regarding resuscitation 2025, I miss some points, which is why I am listing three cases here. Of course, the existing guidelines are not to be criticized, but it is about aspects that enable a measure to be taken in hopeless situations that gives the patient a chance of survival. A doctor who only makes decisions based on guidelines can also be replaced by AI at any time.

Here are some notes that I have taken down about my person

I have been the head of internal intensive care units for many years and have carried out more than 1000 rescue missions as an emergency doctor. I was able to carry out several hundred successful resuscitations. It should be

noted at this point that at that time - when I was working in hospital - heart attack patients were treated in the general internal medicine intensive care unit. After intubation, a ten to twelve rhythm was performed, followed by two ventilations. The standard medication was adrenaline for bradycardia/asystole and xylocaine for ventricular fibrillation during defibrillation [1].

Interestingly, the resuscitation of these two patients was practically identical:

1. Patient

A 64-year-old man who worked as an entrepreneur. Moderate nicotine abuse, mild hypertension, well controlled with medication, low obesity.

2. Patient

A 69-year-old man, still in a managerial position. Normal weight, no known significant previous illnesses.

At that time, I was working as a senior consultant at the hospital. Outside normal working hours, the hospital service was provided by assistant doctors, and there was also a background service on call from home. Both people were taken to hospital by the ambulance service accompanied by an emergency doctor. On admission to the intensive care unit, both patients went into ventricular fibrillation and were resuscitated in accordance with the guidelines at the time. After one hour of resuscitation with approx. 20 defibrillations and maximum administration of xylocaine, it was not possible to restore sinus rhythm. As they were well-known local people, they did not want to stop the resuscitation without consulting the senior staff. As it happened, I had the same with these patients. There were several months between these events. I gave the order to continue with ventilation and cardiac massage until I had inspected the patient myself. The measures taken up to that point were successful in that neither patient had light-stopping pupils. As all the medication had already been exhausted, I decided to administer potassium intravenously to the patients. This was a potassium chloride solution 7.45% 20 ml. Both patients were then successfully defibrillated. A stable sinus rhythm could be established. Despite a resuscitation time of more than 90 minutes, there were no cerebral deficits in the patients. Both patients were able to return to work and fully resume their activities [2].

After this experience with potassium chloride solution, I used it several more times for therapy-resistant ventricular fibrillation; each time with success. These examples show that the duration of resuscitation with effective cardiac massage and ventilation is of secondary importance. As long as ventricular fibrillation is present, the measures must be continued until defibrillation breaks through this after appropriate medication. If the conventional drugs have been administered in maximum doses, the administration of potassium chloride with its membrane-stabilizing effect is worth considering.

Note on asystole/spontaneous placement of a temporary pacemaker:

In the intensive care units where I worked, temporary pacemaker systems were always available. In rare cases, in the event of spontaneous asystole, e.g. drug intoxication with suicidal intent, the rapid insertion of a temporary pacemaker may be necessary. Access via the left subclavian vein has proved successful in this case. In this case, the probe presses against the wall of the superior vena cava and is guided into the right ventricle.

Conclusion

It is very important for the attending physician during resuscitation to know how long to continue the measures until a genuine failure has occurred. Of course, it is also important to consider whether significant cerebral damage has occurred. On the basis of the examples given here, it can be seen that the time window can be set wide with optimal ventilation and cardiac massage and therefore there is also time available for variations in treatment.

Conflict of Interest

The authors declare no conflicts of interest.

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