

Dear Editor,

We are thankful for considering our manuscript for peer-review in your esteemed journal. We have considered all the comments/ suggestions given by the worthy reviewers and have acted upon accordingly. The changes made in the revised manuscript are either highlighted or line/page number for added text is mentioned. Responses to the reviewer's comments are given below in detail.

Comments and Response:

Reviewer

Comment 1

Would similar outcomes be achievable in older adults receiving the same interventions? Please discuss this potential limitation.

Authors response:

The following discussion section has been incorporated:

Due to changes in societal roles, elderly individuals seldom encounter respiratory and cardiac arrest caused by external or human factors, which sets them apart significantly from non-elderly adult patients. The primary etiologies of out-of-hospital cardiac arrest (OHCA) among the elderly encompass cardiogenic and respiratory ailments as well as asphyxia. Owing to physiological deterioration, exacerbation of chronic underlying conditions, and diminished drug responsiveness following hypoxia, the success rate of resuscitation substantially diminishes with advancing age. Elderly individuals afflicted with cerebrovascular disease, dementia, cerebellar atrophy, and associated disorders frequently manifest a profound decline in swallowing function leading to an augmented risk of aspiration during meals. Furthermore, those suffering from multiple chronic diseases accompanied by respiratory tract infections may experience impaired cough reflexes and compromised airway protection functions that can further impede recovery from OHCA.

Comment 2

What does this case teach us about management of cardiac arrest? Did any of the interventions differ from standard of care, and if so, did those changes contribute to the favorable outcome?

Authors response:

The following discussion section has been incorporated:

In summary, the successful treatment in this case can be attributed to the following factors: 1) Implementation of effective rescue measures, including continuous and uninterrupted chest compressions, defibrillation, prompt establishment of an artificial airway with adequate ventilation, and appropriate administration of cardiovascular drugs, contributed significantly to the successful treatment in this case. 2) Despite the patient's heart stopping for over 50 minutes and complete loss of reflexes with no response to pain stimuli, medical staff and family members demonstrated unwavering persistence in resuscitation efforts without easily relinquishing treatment in what appeared to be a seemingly hopeless situation. This steadfast determination ultimately led to successful recovery. 3) Continued preservation of organ function after resuscitation is crucial, particularly for vital organs such as the heart, brain, lungs, and kidneys. It is imperative to target control blood pressure levels, oxygen saturation levels, carbon dioxide partial pressure as well as body temperature. Early initiation of enteral nutrition can prevent dysbiosis-induced secondary infections. Additionally, the timely application of hyperbaric oxygen therapy following cardiopulmonary resuscitation greatly improves cerebral recovery outcomes, leading to enhanced prognosis through reduced disability rates or mortality risks and minimized occurrence of vegetative states. As a result, it contributes to an overall enhancement in patients' quality of life.

Comment 3

There are many serum chemistry values presented in the text (lines 80–89 and 99–101) that might be better presented in a table, with the initial and 2-day values alongside the reference ranges for these variables. Several variables are reported in the first set of values but not for day 2. Were there any changes in transaminase activities, white and red cell and platelet counts, CK-MB, troponin, myoglobin, bilirubin, etc. at 2 days?

Authors response:

The results of the blood tests are presented in a table.

Comment 4

There are a few minor points: Line 64: “20 minutes later” – Is this the time from onset of cardiac arrest? If not, please include that information. Line 75: “eyes” – pupils? The long paragraph from lines 60 to 119 could be divided into shorter paragraphs for readability. Lines 89, 98 and 107 may be appropriate points to start new paragraphs. Throughout this section there are numerous non-standard acronyms, some of which aren’t defined. Does SBE (line 89) differ from BE (line 101)? Do those values represent base excess? Other acronyms are defined (e.g. WBC, RBC, ALT, AST, TBIL) but only appear once. Organizing the data in a table may mitigate these problems. Line 76: Text is missing Line 119: Were there no lingering deficits? Line 131: “increase” – decrease?

Authors response:

We have implemented the aforementioned recommendations and made necessary adjustments to enhance our performance.