

Abstract

Purpose: Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA) may improve Systolic Blood Pressure (SBP) in hypovolemic shock. It has, however, not been studied in patients with impending cardiac arrest (ICA). We aimed to study the feasibility and clinical outcome of REBOA in patients with ICA using data from the ABOTrauma Registry.

Methods: Retrospective and prospective data on the use of REBOA from 16 centers globally were collected. SBP was measured both at pre- and post-REBOA inflation. Data collected included patients' demography, vascular access technique, number of attempts, catheter size, operator, zone and duration of occlusion, and clinical outcome.

Results: There were 71 patients in this high-risk patient group. REBOA was performed on all patients, in a majority using a 7Fr catheter placed on the first attempt through blind insertion and inflated in Zone I for a period of 30 to 60 minutes by ER doctors, trauma surgeons or vascular surgeons. SBP significantly improved following the inflation of REBOA. 38% of the patients survived.

Conclusions: Our study has shown that REBOA is feasible in patients with ICA, SBP can be elevated and 38% of the patients survived.