

## ABSTRACT

Associations of arterial carbon dioxide and arterial oxygen concentrations with hospital mortality after resuscitation from cardiac arrest.

### **-Background:**

Arterial concentration of carbon dioxide and oxygen during admission to the intensive care unit may substantially predict the organ perfusion and outcome after cardiac arrest.

### **-Objectives:**

This study aimed to investigate the associations of arterial carbon dioxide and arterial oxygen concentrations with hospital mortality in patients admitted to ICUs after cardiac arrest.

### **-Methods:**

The study included 50 patients admitted to the ICU after out-of-hospital cardiac arrest and cardiopulmonary resuscitation, who were mechanically ventilated at any moment in the first (24 hrs) of admission who admitted to ICU of (Critical care units of cairo universty hospitals) ; El Agouza hospital, Other ICU facilities in ministry of health hospitals.

### **-Results:**

Both hypocapnia and hyperoxia were significantly associated with hospital mortality of patients who were mechanically ventilated at any moment in the first 24 hours of admission after resuscitation from cardiac arrest.

### **Conclusion:-**

The effects of arterial carbon dioxide and arterial oxygen concentrations were independently associated with hospital mortality after resuscitation from cardiac arrest.

**Keywords:** Post cardiac arrest ,hospital mortality,PaO<sub>2</sub>,PaCO<sub>2</sub>