OUTCOME OF CARDIAC ARREST IN PEDIATRIC INTENSIVE CARE UNIT IN ASSIUT CHILDREN UNIVERSITY HOSPITAL

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Introduction: Cardiac arrest is a clinical event that can occur suddenly, often without premonitory signs. Outcome of CPR is dependent on many factors, the site of event, quality of CPR, whether the event was witnessed, time to basic life support, time to advanced life support and initial rhythm.

Purpose: To determine the outcome of cardiopulmonary resuscitation in PICU and factors associated with unfavorable outcome.

Methods: Retrospective study of children with cardiac arrest and required CPR in PICU over a period from January to December 2010. Two outcome variables were measured (ROSC) and survival to discharge from PICU.

Results: 700 PICU admission, a total of 172 (24.6%) patients developed cardiac arrest that required CPR. ROSC was achieved in 78 cases (45.3%), 25 patients (14.5%) survived to discharge and 94 patients (54.7%) did not respond to resuscitations. Success and survival were significantly higher in cases resuscitated for ≤20 mins than >20 mins (100% and 33.3% vs. 32.4% and 10.1% respectively). Success and survival were better for mechanical ventilation than those were not (48.1% and 17.8% vs. 37.2% and 4.7% respectively). Defibrillation was successful in 10 cases (25%) and survival was in 1 case (0.5%) and out of survivors 80% had good neurological outcome.

Conclusion: The frequency of cardiac arrest needed CPR was recorded in 24.6%. Improving the quality of CPR is an important factor to improve the outcome by implementing training programs. Studies using neurophysiological methods to predict the neurological outcome are needed.