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Pharmacodynamic profile and haemodynamic effects of atracurium and cisatracurium in children with cyanotic congenital heart disease undergoing corrective open-cardiac surgery.

Thesis

Submitted for the partial fulfillment of the MD degree in anaesthesiology, Faculty of Medicine, Cairo University.

By

Alaa Abdel - Aziz Niazy
MB BCH, MSc anesthesia

Supervisors

Prof. Mohamed Salah Sarhan
Professor of anesthesiology
Faculty of Medicine,
Cairo University.

Dr. Mohga Saad El-Din El-Sanabary
Ass.Professor of anesthesiology
Faculty of Medicine,
Cairo University.

Dr. Salwa Mohamed Hefnawy
Ass.Professor of anesthesiology
Faculty of Medicine,
Cairo University

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Hemodynamic profile and hemodynamic effects of atrial and ventricular septal defects in children with cyanotic congenital heart disease undergoing corrective open cardiac surgery

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ABSTRACT

Pharmacodynamic profile and haemodynamic effects of Atracurium and Cisatracurium in children with cyanotic congenital heart disease undergoing corrective open-cardiac surgery.
By: Alaa Abdel-Aziz Niazi,

Atracurium and Cisatracurium were studied in 40 children (Fallot’s Tetralogy cases) undergoing corrective open cardiac surgery and non-cardiac children needing neuromuscular blocker for general surgery. Haemodynamic parameter included pulmonary artery pressure, blood pressure, heart rate, Qp/Qs ratio, and central venous pressure were measured to compare the effects of Atracurium and Cisatracurium in cardiac patients. Neuromuscular parameters (The first twitch amplitude depression of TOF ratio of 75%, 50%, 25%, onset, duration and clinical duration) of Atracurium and Cisatracurium in cardiac and non-cardiac children. There were haemodynamic stability with the use of Cisatracurium and prolongation of (The first twitch amplitude depression of TOF ratio of 75%, 50%, 25%, onset) in contrast to Atracurium, which was associated with haemodynamic instability due to release of histamine.

Key words: Fallot’s Tetralogy, right to left shunt, pulmonary artery catheterization, pulmonary artery pressure, Atracurium and Cisatracurium.
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