

Transfusion and morbi-mortality factors: An observational descriptive retrospective pediatric cohort study

Claudine Kumba, Fabiola Cresci, Camille Picard, Cécile Thiry, Souha Albinni and Gilles Orliquet
Necker Enfants Malades University Hospital, France

Background: Intraoperative and postoperative morbi-mortality factors are multiple in pediatric patients. Studies in pediatric cardiac surgery and intensive care patients have identified transfusion as one independent factor among others. There is not a lot of data concerning transfusion related morbi-mortality in other pediatric patients fields like neurosurgery, abdominal and orthopedic surgery. These were investigated.

Objectives: To identify morbi-mortality risk factors in intraoperatively transfused and not transfused pediatric patients in neurosurgery, abdominal and orthopedic surgery.

Design: Retrospective observational descriptive pediatric cohort study.

Setting: Monocentric pediatric tertiary center, Necker Enfants Malades University Hospital Paris, from 1 January 2014 to 17 May 2017.

Patients: 594 patients with mean age of 90.86 ±71.80 months were included. Inclusion criteria were the presence or the absence of transfusion in the intraoperative period in neurosurgery, abdominal and orthopedic surgery patients. Exclusion criterion was transfusion in the postoperative period until discharge from hospital.

Main outcome measures: Primary outcome was mortality and secondary outcome was morbidity in transfused and non transfused patients. Mortality

was assessed by deaths occurring intraoperatively or postoperatively during the entire hospitalisation. Morbidity was assessed by intraoperative, postoperative complications, repeat surgery, length of stay in the intensive care unit, in the hospitalisation ward, total length of stay in hospital and length of mechanical ventilation.

Results: Multivariate analysis revealed that ASA score was the independent risk factor for mortality (odds ratio 28.78, p-value<0.001). Transfusion (p-value<0.01), emergency surgery (p-value<0.05), type of surgery (<0.01), age (<0.05) and prematurity (<0.001) were independent risk factors for morbidity.

Conclusions: Patient outcome can be improved by applying specific preventive measures on each risk factor.

Speaker Biography

Claudine Kumba graduated as a Medical Doctor in 2001 and completed her specialisation in Anaesthesiology in 2006 at the Free University of Brussels (ULB, Université Libre de Bruxelles). She has a Paediatric Anaesthesia specialisation graduation since 2010 from the University of Aix-Marseille, Marseille, France. She has a Critical Care Medicine specialisation graduation since 2014 from the University of Montpellier, Montpellier, France. She is a paediatric anaesthesiologist in Necker Enfants Malades University Hospital, in Paris, France. She has 12 publications and 17 citations. She is a member of the European Society of Paediatric Anaesthesiology (ESPA), the French Society of Anaesthesia and Critical Care (SFAR, Société Française d'Anesthésie-Réanimation) and the French Association for Paediatric Anaesthesiologists and Intensivists (ADARPEF, Association d'Anesthésistes et Réanimateurs Pédiatriques d'Expression Française) and the Belgian Association for Paediatric Anaesthesiology (BAPA).

e: claudine.kumba@gmail.com