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DURATION OF CARDIOPULMONARY BYPASS IN PEDIATRIC CARDIAC SURGERY IS NOT ASSOCIATED WITH POSTOPERATIVE INFECTIONS

S.O. Algra[1,2], M.M.P. Driessen[2], A.W.L. Schadenberg[2], A.N.J. Schouten[2], F. Haas[1], C.W. Bollen[2], N.J.G. Jansen[2]

[1]Department of Pediatric Cardiothoracic Surgery, [2]Department of Pediatric Intensive Care, University Medical Center Utrecht, Utrecht, The Netherlands

Background and aims: In pediatric cardiac surgery, cardiopulmonary bypass (CPB) is frequently employed. CPB is known to initiate a systemic inflammatory response, although other factors like anesthesia, ischemia/ reperfusion and the surgical procedure itself may play a role. The systemic inflammation is composed of a pro- and anti-inflammatory phase, of which the latter can lead to postoperative infections. We hypothesised that longer duration of CPB in pediatric cardiac surgery is associated with increased occurrence of postoperative infections.

Methods: All pediatric patients undergoing cardiac surgery with CPB from April 2006 until May 2009 were included in a retrospective analysis. Postoperative infections were categorised according to Centre of Disease Control-criteria. Logistic regression was used to discriminate whether duration of CPB was associated with postoperative infections, and whether this relationship was confounded by variables such as weight, surgical complexity and lowest intra-operative temperature.

Results: In 364 patients, 412 procedures were performed (median age 29 weeks). An infection occurred following 25% of the procedures (median start on postoperative day 7). The most common were blood stream infections (25% of all infections) and surgical site infections (26%). In univariate analysis, duration of CPB was associated with the occurrence of postoperative infections. However, this association was disturbed when correcting for weight, surgical complexity and lowest intra-operative temperature in multivariable analysis.

Conclusions: In pediatric cardiac surgery, longer duration of CPB in itself is not associated with postoperative infections. Therefore, other factors are likely to contribute to the high incidence of postoperative infections after pediatric cardiac surgery.

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CURRENT STRATEGIES TO REDUCE COAGULASE NEGATIVE STAPHYLOCOCCUS (CONS) IN THE NEONATAL UNIT

V. Venugopalan

Neonatal Unit, John Radcliffe Hospital, Oxford, UK

Aim: To evaluate whether strict aseptic procedures reduces the CONS positive blood cultures.

Methods: In our neonatal unit, any procedure involving skin breakdown is done in a sterile aseptic procedure (from 1st September 2008). We analysed all positive blood cultures from the neonatal unit from November 2007 to October 2009 (10 months before the intervention and 13 months after). We analysed the positive blood cultures in relation to the number of admissions in the unit and the Intensive care/High dependency activity in the neonatal unit in the same month. Statistical analysis was using two sample independent “t” test.

Results: The number of CONS positive cultures reduced by 75% in the first 3 months and 40-50% in the subsequent 10 months. (p 0.008, 95% CI (0.75 -4.45). There was reduction in the CONS positive cultures in relation to the number of admissions (p 0.025, 95% CI (0.45 -7.1). In relation to the Intensive care/High dependency activity, there was a 70-80% reduction in the CONS positive cultures in the first 3 months and 40-50% reduction in the latter 10 months. (p 0.01, 95%CI (0.21-1.48).

Conclusion: CONS is a common nosocomial infection in the neonatal unit. Our incidence is about 7-10/1000 live births (some could be contamination without infection). There was reduction in the number of positive CONS post introduction of above precautions and the reduction was also seen in relation to the number of admissions and to ITU/ HDU activity. However, they need to be monitored regularly and kept under strict surveillance.

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FATAL ENTEROVIRAL MYOCARDITIS IN 30+2 WEEKS GESTATION MONOCHORIONIC DIAMNIOTIC TWINS

V.M. Shivamurthy, A.K. Sapare, V. Kairamkonda

Neonatal Unit, University Hospitals of Leicester, Leicester, UK

Monochorionic Diamniotic twins were born at 30+2 weeks gestation by Emergency caesarean section