CO 3
Effects and risks of beta-blocker in infantile haemangioma: A retrospective analysis

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Introduction Infantile haemangioma (IH) is a very common vascular tumour that affects up to 10% of newborns. Since 2008, oral propranolol is used to treat complicated IH, like haemangioma that obstruct vital structures or ulcerated haemangioma.

Objective The aim of this study was to investigate, by a retrospective review, the therapeutic results and effects of propranolol on cardiovascular and biological parameters in infants treated for complicated infantile haemangioma and to assess its safety.

Results All paediatric patients with complicated IH who started systemic propranolol from February 2009 to December 2014 were included. 218 patients (155 girls and 63 boys) were treated by propranolol. The mean weight was 6780 g (2115 g to 20000 g). Median age at beginning of treatment was 4.6 months (10 days to 6 years). The most frequent localisation of IH was facial (63 patients), palpebral (52 patients), perineal (20 patients), labial (14 patients), airway obstruction (8 patients) and 1 PHACE syndrome. Median length of therapy was 7.5 months for facial IH, 6 months for palpebral, 5.6 months for perineal IH and 7 months for subglottic localisation. Adverse events were observed: hypoglycaemia (n = 11 patients aged less 6 months), arterial hypotension (n=103 patients, especially at the second and third dose with dose titration), bradycardia (n=120). Transthoracic echocardiography was realised in 103 patients, especially at the second and third dose with dose titration, and 5 strictly related to admission status), with 2 AE requiring surgery. CPI (7<2.5 Kg, 4<1.5 kg) covered almost all types of intervention. One CPI directly related death was noted, but 30 – day mortality was 7.5% and mid-term mortality 15%. Urgent CP had higher PTRC (p<0.001), HVI (p<0.02), and mortality (p<0.001) but lower weight (p<0.02) than elective. Severe AE were associated with urgent or rescue CP (p<0.005), transfusion (p<0.005), 30-day and mortality (p<0.001). Mortality was also linked (p<0.001) with secondary elective surgery, some CP types (CHARM classification), lower weight (30-day mortality only, p=0.03), and pulmonary valvuloplasty (30 – day mortality only, p<0.001).

Conclusion CP <1 year was often urgent and at high risk with a reasonable number of significant AE’s and a low CP related death rate. Admission status, 30-day mortality, and weight <2 kg need a careful attention.

Conflict of interest The authors have not transmitted any conflicts of interest.

CO 4
Mid-term outcome of 120 infants less than one year-old in a French Caribbean cardiac catheter lab: related factors to adverse events and 30-day mortality

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Background Cardiac catheterization in infants is associated with Adverse Event (AE) or mortality in Congenital Heart Disease (CHD). AE levels and procedure type risk categories (PTRC) have been defined using the previously reported CHARMC study.

Aim To investigate factors associated to AE and outcome using PTRC and a new hemodynamic vulnerability index (HVI) in a Caribbean catheter lab.

Methods Retrospective longitudinal records from 2007 to 2014 in all consecutive infants <1 year admitted for elective or urgent cardiac procedure (CP), either diagnostic (CPD) or interventional (CPI). Demographics, CHD’s, non – cardiac problems, PTRC, HVI, AE, transfusion, 30-day and mid-term mortality were analysed.

Results 120 consecutive infants (age: 121.3 ± 91.5, median 126, 0-340 days, weight: 4.54 ± 1.6, median 4.6, 1-9 Kg) were included, with 32%(≥ 5% of CPD); 2 (≥ 5% of CPI) (95% of success), and 12.5% of transfusion. Among all CP’s, 39 (32 CPI) were urgent or rescue, and 27% had a HV≥2. Significant AE (level 23) were noted in 11 (9.2%) cases (6 of level 5, and 5 strictly related to admission status), with 2 AE requiring surgery. CPI (7<2.5 Kg, 4<1.5 kg) covered almost all types of intervention. One CPI directly related death was noted, but 30 – day mortality was 7.5% and mid-term mortality 15%. Urgent CP had higher PTRC (p<0.001), HVI (p<0.02), and mortality (p<0.001) but lower weight (p<0.02) than elective. Severe AE were associated with urgent or rescue CP (p<0.005), transfusion (p<0.005), 30-day and mortality (p<0.001). Mortality was also linked (p<0.001) with secondary elective surgery, some CP types (CHARM classification), lower weight (30-day mortality only, p=0.03), and pulmonary valvuloplasty (30 – day mortality only, p<0.001).

Conclusion CP <1 year was often urgent and at high risk with a reasonable number of significant AE’s and a low CP related death rate. Admission status, 30-day mortality, and weight <2 kg need a careful attention.

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