later. Data were analysed by multi-level analysis and Mann-Whitney-U-test.

Results: Nine neonates (median age: 1 day [range:0-18]) underwent BAS and four neonates (median age: 4 days [range:0-6]) did not. R_cSO_2 increased after BAS (from mean 37% to 49% to 64% [p=0.000]), as did $tcSaO_2$ (from mean 68% to 81% to 84% [p=0.000]). FTOE decreased after BAS (from mean 0.46 to 0.40 to 0.25 [p=0.000]). Neonates who did not need BAS showed higher baseline r_cSO_2 and $tcSaO_2$ compared to neonates who did (median 57% vs 35% [p=0.020] and 88% vs 77% [p=0.034], respectively). After BAS, there were no differences between both groups.

Conclusion: In neonates with TGA in need of BAS, r_cSO_2 increased and FTOE decreased following BAS. This suggests improved cerebral oxygenation, which, possibly, protects against hypoxic-ischemic brain-injury.

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SECOND COURSE OF IBUPROFEN FOR PDA : COMPARISON OF 10-5-5 *VS* 20-10-10 MG/KG IN INBORN INFANTS < 28 WKS GA

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Background and aims: Recent pharmacological data suggest increased ibuprofen doses for treating patent ductus arteriosus (PDA). We evaluated the effectiveness and tolerance of a double dosed second ibuprofen course in our population.

Methods: In our unit PDA management relies on systematic and repeated echocardiographic exams seeking strict treatment criteria (ductal diameter, left atrium/aortic root, left pulmonary artery diastolic blood flow). Persistent echocardiographic criteria after a first ibuprofen course induce a second course if not contra-indicated.

We conducted a monocenter retrospective study by comparing two time periods: November 2004 to March 2006 and April 2006 to November 2009 where the second ibuprofen course doses respectively were 10-5-5 (IBU1) and 20-10-10 (IBU2) mg/kg. Baseline characteristics, treatment incidence, ductal closure and complications were compared between IBU1 and IBU2. Term-based subgroup analysis was performed (< or ≥ 26 wks GA).

Results: IBU1 and IBU2 populations were comparable. Ductal closure was more frequent for IBU2 (23/55,42%) than for IBU1 (3/23,13%) (p=0,02). Subgroup analysis confirmed this result only for infants ≥ 26 wks GA.

Incidence of mortality and common morbidities were comparable between IBU1 and IBU2. Among infants < 26 wks GA we observed a higher, although not significant, incidence of “death or BPD” for IBU2 *vs* IBU1 (37% *vs* 9%).

Conclusions: This is the largest report of increased ibuprofen doses in infants < 28 wks GA with systematic echocardiographic assessment. In this study risk/benefit balance supports the use of a double-dosed second course of ibuprofen for PDA treatment only in infants ≥ 26 wks GA.

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THE DEFINITION OF A HEMODYNAMIC SIGNIFICANT DUCT IN RANDOMISED CONTROLLED TRIALS, A SYSTEMATIC LITERATURE REVIEW

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The ductus arteriosus is associated with morbidity in preterm infants. Treatment is prescribed for a hemodynamically significant duct (HSDA), but its definition varies. We systematically reviewed published clinical and ultrasound definitions (US) of a HSDA.

Methods: Pubmed and the Cochrane library were searched for randomised trials on ductal closure or trials evaluating the prevention of a symptomatic duct developing.

Results: Fifty nine trials were included in our review. Thirty nine trials used clinical and US criteria to define a HSDA, 5 trials clinical criteria only, 10 trials US criteria only, 2 trials clinical or US criteria and in 3 trials the criteria were not mentioned. Re-entry criteria for ductal assessment was clinical only (2), clinical followed by ultrasound (39), US only (3) or it was not mentioned (15). Clinical criteria were defined in 41 trials, with murmur (29), bounding pulses (27), hyperdynamic precordium (24), cardiomegaly (19) and respiratory status (19) most reported on. US criteria were defined in 50 trials, with LA/Ao ratio > 1.15 to 1.7 being most reported (33). Other US