

META – ANALIZË E STUDIMEVE TË RANDOMIZUARA QË KRAHASOJNË IBUPROFENIN ME PLACEBO/JO NDËRHYRJE TERAPEUTIKE NË PROFILAKSINË E DBA-SË SIMPTOMATIK TEK PRETERMI

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Summary

IBUPROFEN FOR THE PREVENTION OF PATENT DUCTUS ARTERIOSUS IN PRETERM AND/OR LOW BIRTH WEIGHT INFANTS (REVIEW)

Patent ductus arteriosus (PDA) complicates the clinical course of preterm infants and increases the risk of adverse outcomes. Indomethacin has been the standard treatment to close a PDA but is associated with renal, gastrointestinal and cerebral side-effects. Ibuprofen has less effect on blood flow velocity to important organs.

Objectives: To determine the effectiveness and safety of prophylactic ibuprofen compared to placebo/no intervention in the prevention of PDA in preterm infants.

Search strategy: Randomized controlled trials of prophylactic ibuprofen were identified by searching in *The Cochrane Library*, MEDLINE, CINAHL, EMBASE and trials registries in December 2010.

Selection criteria: Randomized or quasi-randomised controlled trials comparing ibuprofen with placebo/no intervention or other cyclo-oxygenase inhibitor drugs to prevent PDA in preterm and/or low birth weight infants.

Data collection and analysis: Outcomes data including presence of PDA on day three, need for surgical ligation or rescue treatment with cyclo-oxygenase inhibitors, mortality, intraventricular haemorrhage (IVH), renal, pulmonary and gastrointestinal complications were extracted. Meta-analyses were performed and treatment estimates are reported as typical weighted mean difference, relative risk (RR), risk difference (RD) and along with their 95% confidence intervals (CI).

Main results: In this update, seven studies ($n = 931$) comparing prophylactic ibuprofen with placebo/no intervention are included. Ibuprofen decreased the incidence of PDA on day three [typical RR 0.36 (95% CI 0.29 to 0.46); typical RD -0.27 (95% CI -0.32 to -0.21); decreased the need for rescue treatment with cyclo-oxygenase inhibitors and decreased the need for surgical ligation. Results from two studies administering oral ibuprofen had similar results, but showed an increased risk of gastrointestinal bleeding. Ibuprofen negatively affects renal function. No significant differences in mortality, IVH, chronic lung disease were found.

Conclusions: Prophylactic use of ibuprofen decreased the incidence of PDA, decreased the need for rescue treatment with cyclo-oxygenase inhibitors and decreased the need for surgical closure.

Key words: Patent ductus arteriosus, oral ibuprofen, intravenous ibuprofen, randomized trials, preterm.

Qarkullimi i gjakut në periudhën neonatale është i varur nga placenta dhe duktusi arterioz që është i hapur (1). Lindja shoqërohet me ndarjen nga placenta dhe frymëmarjen e parë, qarkullimi i gjakut ndryshon dhe kemi mbylljen e menjëhershme të duktusit arterioz të hapur (2). Megjithatë tek 1/3-ta e fëmijëve me peshë të vogël në lindje (<2500 gr) mbyllja e

duktusit dështon duke qëndruar e hapur përgjatë ditëve të para pas lindjes (3,4).

Kjo dukuri është më e shpeshtë tek bebet preterm dhe lidhet në mënyrë të zhdrejtë me moshën. Kështu sa më e vogël të jetë moshë e barrës dhe sa më e vogël të jetë peshë e të porsalindurit aq më e madhe është mundësia që duktusi arterioz i hapur të mos mbyllet