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ORAL IBUPROFEN EFFECTS ON DUCTUS ARTERIOSUS CLOSURE AT PRETERM NEONATES

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Introduction: Ibuprofen, a cyclo-oxygenase inhibitor, is commonly used drug for closure of the ductus arteriosus in premature infant. The usual form of administration is intravenous. There are countries where this medication is not available and oral form is used in small premature infants.
Aim: The study aims to assess the side effects of the oral preparation for closure of the ductus arteriosus in a level III unit in Romania.
Material and methods: The prospective study was performed on premature infants hospitalized in the intensive care unit in 2009 (January-December), Cluj-Napoca, Romania. The including criteria were: preterm neonates older than 72 hours of life, hemodynamically significant persistent ductus arteriosus (PDA). The exclusion criteria were: necrotizing enterocolitis or gastrointestinal bleeding, platelets number under 50.000/mm3, oliguria (less than 1 ml/kg/hour), creatinine more over 1.5 mg/dl, grade III cerebral hemorrhage, severe hyperbilirubinemia. The protocol was approved by the Ethics Committee and informed consent of the parents was obtained. Administration of ibuprofen was as follows: 10 mg/kg/dose followed by 5 mg/kg/dose - two doses at 24 hours interval. In the control group we used indomethacin intravenously 0.2 mg kg/dose followed by 0.1 mg/kg/dose every 24 hours. Echocardiography was performed 48-72 hours the last dose.
Results: The study group consisted of 22 pacients, 14 female (64%) and 8 male (36%), with mean birth weight of 1732g ±746g (95% CI [1401-2062]). The control group comprised 15 pacients with mean birth weights of 1487 ± 192g (95% CI [1380-1593]). The dimensions of ductus arteriosus were 3.53 ± 1.84 mm (95% CI [2.72 to 4.35]) in the study group versus 3.30 ± 0.53 mm (95% CI [3.02 to 3.59]) in the control group. After treatment the ductus measured 1.53 ± 1.92 mm (95% CI [0.68 to 2.38]) in the study group compared to 0.48 ± 1. 03 mm (95% CI [0.00 to 1.05]). The platelet counts decreased in both groups: 201 318 ± 177562/mm3 (95% CI [122592-280045] in studio group and 160,400 ± 42,925/mm3 (95% CI [136629-184171]) but without statistically significant difference (p = 0.54). Creatinine values increased significantly in the control group (p = 0.001). The value for study group was 0.72 ± 0.39 mg/dl before treatment and 0.81 ± 0.19 mg/dl for the control one. Creatinine, after treatment, increased to 0.93 ± 0.19 mg/dl in the study group versus 1.01 ± 0.20 mg/dl in the control group. Diuresis decreased in both groups without significant differences. There was no case of digestive hemorrhage or death in the study group.
Conclusion: Oral ibuprofen may be an alternative for patent ductus arteriosus closure but needs to be studied more, our groups are small in number.
Key words: preterm infant, ibuprofen, ductus arteriosus

INTEGRAREA RECOMANDĂRILOR GHIDURILOR DE ALIMENTAȚIE DESTINATE PREMATURILOR ÎNTR-UN PROGRAM COMPUTERIZAT – PRIM PAS SPRE AMELIORAREA NUTRIȚIEI PREMATURILOR

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Introducere: Pe măsură ce rata supraviețuirii prematurilor crește o atenție tot mai mare trebuie și este acordată ameliorării calității vieții acestora printr-o nutriție optimă. Este deja bine cunoscut faptul că nutriția în perioadele critice ale vieții – precum spitalizarea în terapia intensivă neonatală – poate afecta permanent structura și/sau funcția organelor și țesuturilor. Deși țelul nutriției neonatale – parenterale și enterale – este oferirea unui aport de energie și nutrienți care să asigure o creștere optimă, între 86 și 97% din prematurii cu greutate foarte mică la naștere prezintă, la vârsta corectată de 36 de săptămâni, restricție de creștere extrauterină (Fanaroff AA și colab., 2007) iar 30-40% din aceștia

Concluzii: Prematurii cu greutate foarte mică la naştere care asociază şi restricţie de creştere intrauterină prezintă morbiditate importantă asociată atât prematurităţii cât şi RCIU.
Cuvinte cheie: restricţie de creştere intrauterină, prematuritate, morbiditate

INTRAUTERINE GROWTH RESTRICTION - AN IMPORTANT FACTOR IN MORBIDITY OF NEWBORN WITH LOW BIRTH WEIGHT

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Introduction: Intrauterine growth restriction (IUGR) is a key factor for perinatal distress, hypoxia at birth increasing the incidence of perinatal mortality and morbidity, including premature births. Neonatal morbidity in infants under 1500g is greater if prematurity is associated IUGR. Low birth weight is considered a consequence of prematurity along with IUGR. Infants with low weight for gestational age is that the newborn who weights less than the 10th percentile.
Aim: The purpose of this study was to evaluate the morbidity and mortality of preterm infants with very low birth weight associating intrauterine growth restriction (IUGR).
Material and methods: The study was conducted over a period of one year in the Department of Neonatology Gynecology Cluj Napoca. Anthropometric parameters were followed, using current clinical and paraclinical evaluation of infants with IUGR, prematurity and weight less than 1500g.
Results: Of 92 infants with IUGR 17 presented the combination of low weight (≤ 1500g) at birth and prematurity (CI 95% [10.88-28.25]). Morbidity was associated with respiratory distress (11 cases, CI 95% [35.64-87.89]) requiring administration of surfactant in 4 cases [9.92-71.9]. Other co-morbidities were associated with hyperbilirubinemia, hypoglycemia, hypocalcemia. Low birth weight during hospitalization influenced by growth. Low birth weight was positively associated with Apgar score at 5 minutes and resuscitation maneuvers. In two cases [0.83-53.72] hypotension was present, requiring inotropic support of dopamine.
Conclusions: Premature infants with very low birth weight and associating IUGR are presenting significant morbidity associated with both prematurity and IUGR.
Keywords: intrauterine growth restriction, prematurity, morbidity

BOLI (METABOLICE) RARE ÎN CAZUISTICA UNUI SPITAL ORĂŞENESC ÎNTRE 2008-2014 ŞI APORTUL TEHNICII MS/MS ÎN SOLUŢIONAREA LOR

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Introducere: Conform prevalenţei apreciate (6-8%) acceptată şi de Programul naţional pentru boli rare 2010-2014, în zona arondată spitalului nostru pot exista între 5500-7300 de pacienţi suferind de unele dintre cele 5000-8000 de boli rare cunoscute până acum. Recunoaşterea instituţională de UE a ponderii acestor boli rare în sănătatea publică datează