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TRABAJOS PRESENTADOS AL 7º CONGRESO ARGENTINO DE PERINATOLOGÍA Y 5º CONGRESO MUNDIAL DE MEDICINA PERINATAL

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TRABAJOS PRESENTADOS AL 7º CONGRESO ARGENTINO DE PERINATOLOGIA Y 5º CONGRESO MUNDIAL DE MEDICINA PERINATAL

Fetal mortality: results from a perinatal pathology database

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Objectives: To determine the diagnostic possibilities of fetal autopsy (FA) and the pathologic findings associated with fetal mortality, according to gestational age (GA), birth weight (BW), and presence or absence of maceration.

Methods: Between 1979 and 2001, 1652 FA were performed. According to diagnostic outcome, they were classified as Satisfactory (S), Poorly Satisfactory (PS), and No Diagnosis (ND); according to GA, as ≤19, between 20 and 28, 29 and 36, and ≥37 weeks, and according to BW, as ≤1.000, between 1.001 and 1.500, 1.501 and 2.500, and >2.500 grams. Considered pathologic conditions were: asphyxia, immaturity (GA ≤25 weeks and without maceration), congenital anomalies (CA), immune hydrops (IH), and intrauterine infections (IUI). In 1.434 cases, a complete autopsy and analysis of the placenta were performed (A), in 138, only the fetus was studied (AB), and in 80, external examination of the fetus and analysis of the placenta were done (B).

Results: 52.3% of the fetuses were male; 47% female, and the 10 remaining cases had ambiguous genitalia. Maceration was found in 55% of the fetuses. In 93% of the cases, the autopsy result was S, PS in 4.7%, and ND in 2.1%. Fifty one point five% had lesions associated with asphyxia, 27.3% were immature, 15.5% had congenital anomalies, 3.7% intrauterine infections, and 1.8% immune hydrops. According to GA, BW, and presence or absence of maceration, the rate of asphyxia grew with GA and with BW, and maceration was present in 80% of these fetuses. The frequency of congenital anomalies was similar in all GA and BW groups, and in 52% of these fetuses, maceration was absent. IUI showed a constant rate throughout gestation, and 75% of these fetuses were macerated. TH was found between 20 and 36 weeks, and 90% of these fetuses were macerated.

Conclusions: Perinatal autopsy is a useful tool to determine pathologic conditions associated with fetal death. Maceration was more frequently associated with asphyxia, IUI and IH. The rate of asphyxia grew with GA and BW. Congenital anomalies, IUI and hydrops maintained a constant rate throughout gestation.

Neonatal mortality: results from a perinatal pathology database

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Objectives: To determine the diagnostic possibilities of neonatal autopsy (NA) and the pathologic findings associated with neonatal mortality, according to gestational age (GA), birth weight (BW), and age at death.

Methods: Between 1979 and 2001, 742 NA were performed. According to diagnostic outcome, they were classified as Satisfactory (S), Poorly Satisfactory (PS), and No Diagnosis (ND); according to GA, as between 23 and 28, 29 and 36, and ≥37 weeks, and according to BW, as ≤1000, between 1.001 and 1.500, 1.501 and 2.500, and >2.500 grams; and according to age at death, as <1 hour, between 1 and 23 hours, between 1 and 6 days, and between 7 and 28 days. Considered pathologic conditions were: asphyxia (pre and postnatal), lesions associated with prematurity, congenital anomalies (CA), immune hydrops (IH), intrauterine infections (IUI), inespecific postnatal infections, and lesions related to procedures. In 70.5% of the cases, only the neonatal autopsy (AB) was performed, while in 29.5% of the cases, the placenta was also studied (A).

Results: 55.3% of the newborns were male; 43.6% female, and 1 remaining cases had ambiguous genitalia. In 98.1% of the cases, the autopsy result was S, PS in 2.1%, and none ND. Congenital anomalies were present in 48.3% of the newborns, 30% had asphyxia, 22.5% inspecific postnatal infections, 14.4% lesions associated with prematurity, 4.9% lesions associated with procedures, 3.9% IUI, and 1.4% immune hydrops. There were 1.2 lesions per patient. According to GA, BW, and age at death, congenital anomalies maintained a constant rate in almost all groups, while it was highest during the first hour of life. Postnatal infections were more frequent at a lower GA and BW. The rate of asphyxia grew with GA and with BW. Lesions related to procedures were more frequent at a lower GA and BW, and at an older age at death.

Conclusions: Autopsy is an useful tool to determine pathologic conditions associated with neonatal death. Pathologic finding associated with NA are in order of frequency CA asphyxia, unspecific postnatal infections, lesions associated with prematurity, lesions related to procedures, IUI and IH. CA are even more frequent during the first hour of life. Lower WB and GA have increased postnatal infections.

Congenital hycrocephaly: epidemiologic description of 55 patients

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Objective: To describe the epidemiological characteristics of newborns with congenital hydrocephaly.

Methods: The records of all newborns with isolated or associated congenital hydrocephaly, born at our hospital and diagnosed prior to discharge, during the 1993-1999 period, were retrospectively reviewed. Patients with neural tube defects were excluded. The overall incidence was established, and cases were distributed by year and month of birth. Main maternal and neonatal variables were described, as well as the rate of associated anomalies, maternal place of residence, prenatal diagnosis of hydrocephaly, associated maternal illnesses during pregnancy, previous miscarriages, and family history of hydrocephaly and other congenital anomalies.

Results: Fifty five newborns with hydrocephaly were ascertained during the period under study. The overall incidence was 1.17 per thousand liveborns, increasing from 0.58 in 1993 to 1.65 in 1999, and showing peaks in the months of April, May and October. 92.7% of the infants were liverborn and 60% males. Mean gestational age was 37.3 weeks, mean birthweight 3.050 grams, 21.8% of the infants were large, and 18.2% small for gestational age. Mean Apgar scores were 6 and 8, at 1 and 5 minutes, respectively. Macrocephaly was clinically evident in 67% of the cases, with a mean OFC of 39 cm. Associated anomalies were present in 56.4% of the infants. Type of presentation was cephalic in 80, and breech in 16.4% of the cases. Delivery occurred through cesarean section in 61.8%, vs. an overall 21%. Mean maternal age was 26.6 years, and prenatal ultrasound diagnosis had been performed in 76.4% of the cases. The place of residence of one fourth of the mothers belonged to the area covered by our hospital. Acute infections during pregnancy occurred in 30%, vs. an overall 1.4% of the mothers, anemia in 7.3%, vs. 2.2%, diabetes in 5.5%, vs. 1.96%, and previous miscarriages in 34.5%. Sibs with congenital anomalies were recorded in 30%, and sibs with hydrocephaly in 20% of the patients. Other relatives with hydrocephaly were recorded in 5.5% of the cases.

Conclusions: Hydrocephaly is a prenatally detectable anomaly, which would explain the increasing secular trend in a neonatal special care unit of reference. The frequent association with certain maternal illnesses on the one hand, and the high familial recurrence rate on the other, might reflect the recognized etiologic heterogeneity of hydrocephaly.

HIV vertical transmission: evaluation of a prevention program

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Background: Vertical transmission (VT) accounts for 6.7% of total AIDS cases and 98% of pediatric cases in our country. Infection among women is steadily increasing. Since 1997 a National Program Provides diagnostic tests, antiretroviral drugs (ARV) and formula for VT Prevention Program (VTPP). Viral Loal (VL) and CD4 counts are troublesome and time consuming. This paper shows the results obtained with a VTPP.

Methods: Our VTPP included the education and training of health care personnel and counselors, standardization of care, multidisciplinary team assistance and full time supervision by an Infectious Diseases specialist. Pregnant women (PW) were counseled and voluntarily tested at their first prenatal visit (PV). HIV (+) PW were followed-up according to CDC guidelines. If the first PV was during the third trimester, ACTG076 was initiated without immunological evaluation. Exposed children (EC) were considered uninfected when PCR-DNA was (-) at 1 and 4 months.

Results: From 1/98 to 12/00, 181 PW were detected: 7 (3.8%) underwent spontaneous abortion and 174 gave birth to 180 NB (6 pairs of twins); 135 (75%) were available for evaluation [2 perinatal deaths, 6 followed-up abroad, 37 lost from follow up (LFU)].

PW characteristics: in 102/174 (58%) HIV was diagnosed during the actual pregnancy, 118/174 (68%) were engaged in risk behaviors, 49/174 (28%) were coinfected with Chagas or sexually transmitted diseases. ARV were started at mean gestational age 24 weeks.

Vertical transmission: 8.9% (12/135) EC were infected: 10% (4/40) in 1998, 11.9% (5/42) in 1999 and 5.6% (3/53) in 2000. VT varied according to time and type of ARV received: 0 in 7 patients (P) with 3 ARV; 8.2% (6/73) in P who received complete ACTG076; 11.1% (3/27) in P with complete ACTG076; 13% (3/23) in P with 2 ARV

(AZT+3TC or Nevirapine). No VT in 5 EC whose mothers diagnosis was know long after delivery. VT was independent of the mode of delivery. EC LFU were 27%, 21% and 13% in 1998, 1999 and 2000.

Comments: VTPP detected more than half of the HIV (+) PW who did not consider themselves at risk, and prompted evaluation and treatment of other HIV (+) family members. Personalized multidisciplinary treatment was crucial for reducing VT and EC LFU. Earlier prenatal control and better conditions for PW immunological evaluation could improve outcome.

Safety and immunogenicity of recently licensed hepatitis b vaccine

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Background: Hepatitis B infection is a mayor public health problem worldwide. Vaccination of preterm (P), term new-borns (T) and adolescents (A) is highly recommended.

Our aim is to evaluate immunogenicity and safety of a newly licensed hepatitis B vaccine (HBVac) administered to P, T & A.

Methods: A prospective study was designed to administer AgB®, obtained by recombinant techniques from Hansenula polymorpha, to P (birth weight <1.500 grs), T and A. Exclusion criteria were mayor malformations, recent administration of blood or immunoglobulin, intrauterine infection, mother HbsAg(+). Doses intervals were 0.1 and 6 months (m), beginning at age: P <2 m, T <1 week and A <1-week post partum. P and T received 10 mcg (5ml) and A 20 mcg (10ml) per dose. Antibodies were measured at 1-2 monts and 6-8 months after 3rd dose, using AUSAB (Elisa) Abbot® equipment, considering protective titters >10 mIU/ml. Adverse effects evaluated were: local (L)= pain of inflammation in injection site; systemic (S)= fever, malaise, vomiting, headache, hypersensitive reactions (HR).

Results: Adverse effects were evaluated in 159 patients with complete vaccine schedules (CVS) and immune response in 90 patients with serological antibody determinations at 1-2 and 6-8 months after CVS. We detected 94 (20%) L and 36 (12%) S adverse effects in 477 vaccine doses.

Distribution was:

Group	PT (n= 41)	T (n= 59)	A (n= 59)
N° doses	123	177	177
L effects	11 (9%)	42 (24%)	41 (23%)
S effects	10 (8%)	8 (4.5%)	18 (10%)

L and S effects were mild and resolved spontaneously. No HR was documented. After 3rd vaccine doses, global seroconversion was 98% (88/90); PT: 17/17 (100%), T 36/37 (97%) and A 34/35 (97%). Distribution of antibody titters in each group was:

Antibody titters in mIU/ml.

Moment of evaluation after CVS	P: media (range) [n]	T: media (range) [n]
1-2 months	3711.1 (145-9000) [17]	4680.1 (0-9001) [37]
6-8 months	944.83 (74-10123) [13]	2041.6 (28-12000) [29]

Moment of evaluation after CVS	A: media (range) [n]
1-2 months	6011.4 (0-9001) [35]
6-8 months	3325.9 (17-9001) [28]

Comments: Frequency and characteristics of documented adverse effects do no differ from those described in the literature. Seroprotection titters obtained are high and persistent in 98% of T and A and in 100% of P.

Grupo B streptococcus bacteremias in newborns: epidemiology and outcome

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Background: Neonatal bacteremias (Nbac) due to Group B Streptococcus (GBS) have become an important cause of morbidity and mortality in our country, although outcome has significantly improved through time. The aim of this paper is to describe our experience with GBSNBac in a public maternal hospital.

Methods: We analyzed all consecutive episodes of GBSNBac assisted from 1/85 to 12/00. GBSNBac were diagnosed when a positive blood or spinal fluid cultures were obtained. Early and late onset bacteremia (EOB) (LOB) were considered when symptoms began ≤ 7 days of >7 days of life, respectively.

Results: GBSNBac occurred in 89 of 101,916 live births (LB). Global incidence was 0.9% LB; 76 episodes (0.75% LB) were EOB and 13 (0.13% LB) were LOB. The main characteristics were:

	Mean age at onset	Pneumonia	Meningitis	Other Focus	Deaths
EOB	7.8 Hs	63 (71%)	11 (12%)	7 (8%)	17 (22%)
LOB	44.5 days	2 (15%)	8 (62%)	3 (23%)	2 (15%)

The incidence and mortality of EOB were higher at lower gestational ages. Frequency of obstetric risk factors (ORF) was: premature birth (PB) 38 (50%), membrane rupture >18 hs 19 (25%), endometritis 16 (21%), no ORF 24 (31%). Incidence of meningitis decreased significantly throughout the period ($p < 0.05$), with no cases in the last 8 years. Mortality decreased from 47% to 13%. Decreasing morbidity and mortality were related to early diagnosis and treatment and to improved perinatal care. PB, shock and ventilator support were significantly associated with mortality ($p < 0.05$).

Comment: GBS has been the first cause of EOB at our hospital in the past 8 years. Morbidity and mortality are steadily descreasing. The knowledge on the epidemiological data and the mortality risk factors have become useful tools for training neonatologists in early diagnosis and treatment. We consider this to be the clue to improved outcome.

Early onset neonatal sepsis. Should lumbar puncture be routinely performed?

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Background: Meningitis (M) is infrequent in new-borns (NB) with early onset sepsis (EOS). However, about 50% of episodes present negative blood cultures (BC) in spite of positive cerebrospinal fluid cultures (CSFC). Controversy exists about the need of including lumbar puncture (LP) in the evaluation of these patients. The aim of this paper is to show our experience with restricted indications of LP in the evaluation of NB with suspected EOS.

Methods: A prospective multicentric study including patients both from public and private centers was designed to evaluate a restricted policy of LP in neonates suspected of EOS from 1/94 to 12/00. EOS was diagnosed in NB ≤ 3 days of life. No LP was performed in NB who presented with respiratory distress and no other symptoms, while it was indicated in seriously ill NB, with clinical deterioration, positive BC or those needing to complete an antimicrobial course on clinical judgment.

Results: Global incidence (I) of EOS was 1.49% (217/145.570) live borns (LB) and I of M was 0.13% (19/145.570) LB. I of EOS differed between centers from 0.5 to 3.5% LB. The annual incidence was:

	1994	1995	1996	1997	1998	1999	2000
	n (‰ LB)	n (‰ LB)	n (‰ LB)	n (‰ LB)	n (‰ LB)	n (‰ LB)	n (‰ LB)
EOS	29 (1.5)	37 (1.9)	48 (1.6)	35 (1.6)	22 (1.2)	27 (1.3)	19 (0.85)
M	3 (0.2)	4 (0.2)	3 (0.1)	3 (0.1)	1 (0.05)	4 (0.2)	1 (0.04)
Total LB	16.400	18.991	26.111	22.398	18.760	20.431	22.479

I of microorganisms isolated from CSFC was: group *B streptococci* 4 (21%), *S. aureus* 2 (10.5%), *E. fecalis* 2 (10.5%), *S. pneumoniae* 3 (16%), *E. coli* 3 (16%), *S. viridians* 1 (15%), *L. monocytoges* 1 (5%), *E. cloacae* 1 (5%), *E. aerogenes* 1 (5%), *P.aeruginosa* 1 (5%). I of M in EOS was 8.8% (19/217); 36.8% (7/19) Nb with M had negative blood cultures. All of them were seriously ill at birth and LP had been included in the initial evaluation. During follow up there were no sequelae due to undetected meningitis.

Comments: The results obtained in this study suggest that a restricted policy of LP in NB with suspected EOS is safe and can minimize morbidity secondary to unnecessary LP.

Fatal fulminant herpes simplex hepatitis during pregnancy and herpetic sepsis in the newborn

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Background: disseminated Herpes Simples Infection (HSI) during pregnancy is rare but extremely serious. The cases that we report presented as non specific febrile syndromes (UFS) after primary infection with increased serum hepatic enzyme levels (SHEL). Case fatality without treatment is about 70%. Our aim is to alert on the importance of considering HSI in the differential diagnosis of viral hepatitis.

Case report: A 31 years old primigravida with a history of normal pregnancy presented at 36 weeks of gestation with UFS. After 7 days of persistent fever she was admitted to hospital. Blood and urine cultures were drawn and she was started on ceftriaxone. On the next day she had a normal abdominal echography, negative cultures and slightly increased SHEL. Persistence of SHEL elevation led to cesarean section. The days after she was admitted to the Intensive Care Unit with SGOT: 3611, SGPT: 1421, prothrombin time 20%, hepatosplenomegaly, pleural effusion, hypotension and hypoglucemia. Serology for hepatotropic viruses and HIV were negative. With diagnosis of fulminant hepatitis she was transferred for transplantation but she died 18 hours after admission before any surgery. Necropsy revealed massive hepatic

necrosis with multinucleated giant cells and uterine cervix ulcers secondary to HSI.

The baby, normal at birth, presented with fever on the 4th day of life. Blood and cerebrospinal fluid (CSF) cultures were drawn and antibiotics started. Three days after, with negative cultures, persistence of fever, increased SHEL, and known maternal diagnosis, CSF was drawn for HSI diagnosis by PCR and intravenous therapy with acyclovir 60 mg/kg/d was started. Liver function tests worsened, she developed pneumonitis and required assisted ventilation during 4 days. PCR in CSF confirmed type 2 HSV. She was dismissed after 21 days of treatment with normal brain magnetic resonance imaging and physical exam. At 2 months of age she presented cutaneous relapse with negative PCR in CSF. Suppressive oral treatment was maintained till 6 months of age. Two years after she shows normal growth and development.

Comment: If disseminated HSI is considered as a differential diagnosis of viral hepatitis with significant SHEL, early antiviral treatment will improve outcome. Knowledge of maternal diagnosis was the only clue that prompted early treatment of the baby.

Continuous gastric infusion: an alternative to intravenous hydration in the neonatal special care unit

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Background: Most conditions affecting newborn babies admitted to the Special Care Unit are mild to moderate and with short lengths of stay. Fluids and carbohydrates to maintain normal hydration and glucemia are usually administered by IV route. The objective of the present study was to compare the efficacy of providing fluids and glucose intravenously vs. continuous gastric infusion (CGI).

Methods: After admission to the special care unit, inborn babies with birthweights over 1.250 g, more than 32 weeks of gestational age, FiO_2 less than 0.5 in cephalic hood, normoglycemic, no polycythemic or other contraindications for enteral feeding, were randomized to receive 80 ml/kg/day with 10% dextrose intravenously (IV group) or a similar amount of 5% dextrose by continuous gastric infusion (CGI group). Daily weight and serum electrolytes, every 6 hs glucemia in the first day and every 12 hs in the next 48 hs were obtained. A failure of treatment was considered when hypo or hyper glycemia (40 and 150 mg% respectively), dehydration (serum Na >150 mEq/L) or over hydration (serum Na <125 mEq/l) were recorded. Complications such as enteral intolerance or worsening of the RDS were also considered treatment failures and in case of CGI, he or she was crossed over to IV infusion.

Results: From June 1999 to December 2000, 157 newborn babies were included in the study, 85 in the IV group nd 72 in the CGI group. There were no statistical difference in birthweight, apgar scores, gestational age and sex between groups. Failure rate was 14% in the CGI babies and 11.6% in the IV group (p= 0.82) Hypoglucemia was the main reason for failure in the CGI group (5.6%, NS). Rates of other complication were similar in both groups. Time to first milk feeding and total time of treatment were significantly shorter in the CGI than in the IV group (19.8 vs. 28.1 hs, p= 0.002 and 23.3 vs. 34.8, p=0.0001, respectively).

Conclusions: We could not find any difference between groups in the variables studied. Administration of fluids and glucose by continuous gastric infusion may be an alternative way to maintain hydration and normoglycemia in newborn babies with an extra benefit of shorter length of treatment and time to initiation of enteral feeding. This is also a painless procedure, free of local complications, easier to perform and less expensive than the IV route.

Multidisciplinary aproach for parents of children with prenatal diagnosis of several malformations

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Background: Sardá Maternity Hospital is a Testeary Perinatal Center with 6-7000 deliveries per year and an incidence of 2% of malformed newborns. Prenatal diagnosis of this condition with the routine use of ecography is now so frecuent that the parents kneed of different care was recognized. Integrated team with obstetricians, genetics, neonatologists and specialized surgeons was organized, but rapidly members of the Mental Health area were incorporated because of the magnitud of the families problems.

Objectives of the study: To evaluate the different emotional reactions of parents to the realistic knowledge of the conditions of their children and to describe the best way of giving a synergistic and comprehensive assistance fron the different members of the multidisciplinary team to the family, including siblings and grandparents.

Methods: Psychologists of the Mental Health area gave a contemporary and continuous with the pregnancy, individualized care to the families with special emphasis in communications with the others staff members. Psychological support was extended after birth or stillbirth and or neonatal death. 98 cases were prospectively studied.

Results and conclusions: in order of frequency observed malformations were: Anencephalus, Myelomeningocele, encephalocele, Hydrocefalus, Omphalocele, Gastroquysis, Genetic syndroms, etc. Parents and familis in crisis like these are, have clears benefits with this type of intervention. The most frequently verbalized demand was the kneed of a better explanation or the type, diagnosis and alternatives of treatment related to the malformation. The necessity of a link between care givers and families was clearly demostrated and psychologists were the clues for this type of disease where nobody wants to give the "bad news". This can only be done with compromise of all. Secondary results were a better social and emotional relation of parents with the institution, a lower level of anxiety and relief patterns in medical doctors.

Adjustment of fathers role after birth of their preterm infant

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Background: Interaction between Psychology and Neonatology disciplines have had a remarkable development in the past few years and let a more specific approach to the welfare of children and parents. The birth of a preterm infant produces a crisis in parentereal relationship. Admission to the intensive acre unit is an emotional distress experience for fathers and mothers. Premature birth often determines difficulties in assuming parenteral roles. Mother-child relationship has been well studied and documented in this situation but its impact on the fathers has not been considered in the same way. The objective of this study was to observe the change in father's role after the birth of a premature baby.

Methods: Individual semistructured questionnaires were performed by a psychologist and a neonatologist to parents of preterm infants with birthweight less than 1.500 g who were assisted in mechanical ventilation.

Results: Fathers and mothers of six infants were studied. Four of the six fathers (67%) modified their usual role: changes in work times, care of their older children, organization of their home and active support to their wives during the stay in the NICU. Two fathers (33%) did not modify their roles nor did it partially. Four of the six mothers (67%) refereed changes in their husband's roles that help them in the care of their babies.

Conclusions: Fathers that showed better plasticity to assume "non usual roles" were able to maintain the functioning of their homes and families with higher support to their wives during the stay in the hospital.

Prenatal intra-amniotic surfactant administration improves the effects of conventional postdelivery treatment

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Background: We have shown in a previous study that the instillation of Tc99m labeled surfactant in the amniotic fluid of pregnant animals produced a small although significant deposit of surfactant in the airways of the treatment fetuses. The objective of the present study was to determine if prenatal surfactant administration improves short-term outcome of postdelivery treatment in a lamb model of sever lung immaturity.

Methods: With a randomized and blind protocol, 125 days pregnant ewes were allocated to receive 240 mg of a natural bovine surfactant phospholipids (Baby Fact B®, GeMePe, Argentina) or a similar amount of normal saline as placebo by amniocentesis. After one hour of pharmacological simulation of fetal breathing movements with aminophylline (4 mg/kg) by IM maternal injection, the fetuses were delivered by cesarean section under local anesthesia. Still in uterus the lambs were anesthetized with ketamine, subjected to tracheotomy and a 2.5 mm Et tube introduced in the trachea. After delivery were placed under a radiant warmer, connected to a conventional ventilator and catheterized in vein and artery. Continuous arterial pressure monitoring. EKG, Hb saturation and core temperature were recorded. Initial ventilator settings were: peak inspiratory pressure (PIP) 30 cm H_2O, end espiratory pressure 5 cm H_2O, ventilator frequency 60 breaths per minute, inspiratory time 0.4 seconds and FiO_2 of 1. PIP and FiO_2 were then modified according to paO2 and pCO_2 with the goal of maintaining paO2 between 45 and 55 and pCO_2 between 45 and 55 mmHg. Thirty minutes after delivery all the animals were treated with 100 mg/kg of natural surfactant. Pre treatment blood gases. FiO_2, PIP, median airway pressure (MAP), oxygenation index (OI) and a/a ratio were determined and compared between groups, and then every 30 minutes during two hours.

Results: Six animals were included in each arm of the study. Predelivery treated lambs had lower PIP (34.7 vs. 39.3, p= 0.015), MAP (16.9 vs. 18.7, p= 0.015) and OI (33.1 vs. 42.4, p= 0.010) than the control group immediately before postnatal treatment. These differences were not significant in the next 30 minutes but were again statistically lower in the 60 (PIP 30.5 vs. 37.5, p=0.007; MAP 15.2 vs. 18, p=0.007); OI 23.2 vs. 36.5, p=0.03) and 90 minutes assessments (PIP 31.8 vs. 40.8, p=0.011; MAP 15.7 vs. 19.3, p=0.011; OI 23.7 vs. 45.2, p=0.003). Comparison at 120 minutes was not possibles for the demise of 4 lambs in the control grupo vs. only 1 in the prenatal treatment group. a/A ratio was only different in the 90 minutes record (0.11 vs. 0.06, p=0.04).

Conclusions: Prenatal surfactant administration improves short-term effects of conventional postdelivery treatment in very immature lambs.

Contribución de la prematurez extrema, moderada y leve a la mortalidad neonatal en una maternidad pública de Buenos Aires

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Antecedentes: La OMS define el parto prematuro como el nacimiento antes de cumplidas las 37 semanas de edad gestacional (EG), pero la mayoría de los estudios se han focalizado en los prematuros extremos (EG < 32 sem.), mientras que aquellos RN entre las 32 y 36 semanas son mucho más frecuentes y su impacto sobre la Salud Pública no ha sido bien estudiada en nuestro medio.

Objetivos: estimar la contribución del parto prematuro extremo (EG 28-31 sem.), moderado (32-33 sem.) y leve 34-36 sem.) a la mortalidad neonatal y compararla con dos países desarrollados.

Diseño: retrospectivo de un cohorte histórica. Población: 16.159 registros de la base de datos del Sistema Informativo Perinatal del Hospital Materno Infantil Ramón Sardá de Buenos Aires entre 1992 y 1994. Medida de Resultados Principales: Riesgo crudo (por 1.000 RN vivos), Riesgo Relativo (RR) y Riesgo Atribuible Poblacional (RAP) de la Mort. Neonatal Precoz (0-6 días) y Tardía (7-27 días) para los prematuros extremos (E), moderados (M) y leves (L) no-malformados en comparación con los RN al término (≥ 37 sem; n= 13.967).

Resultados: Tasa de prematurez: 13,5%. Riesgo crudo de muerte neonatal global entre prematuros E, M y L: 368, 12,4 y 6,1 respectivamente. El RR de Mort. Neon. Precoz fue de 445 (IC 95% 266-758), 12,1 (4-36) y 6,7 (3,1-14,4) para prematuros E, M y L respectivamente. Para la Mort. Neon. Tardía los RRs fueron 148 (IC 95% 56-391), 13,2 (2,7-63,3) y 3,6 (0,9-14) respectivamente. El RAP para la Mort. Neon. Precoz fue de 88%, 19% y 37%, respectivamente, para la prematurez E, M y L. Los correspondientes RAP para la Mort. Neon. Tardía fueron 55%, 20% y 21% respectivamente. Comparadas con EE.UU. (1995) y Canadá (1992-1994) estas cifras muestran un importante incremento en los RAP de la mortalidad neonatal para todos los estratos de EG.

Conclusiones: en los países en desarrollo el parto prematuro continua siendo uno de los mayores problemas de Salud Pública. El prematuro leve, y especialmente el moderado, presentan un elevado RR de muerte durante los primeros 28 días y son responsables de una importante fracción de la mortalidad neonatal precoz y tardía.

Evaluación del desarrollo psicomotor en niños de 2 a 5 años (video)

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Objetivo: Video con fines didácticos que facilita al pediatra asistencial un método sencillo de evaluación sistemática del desarrollo psicomotor en preescolares dentro de la consulta pediátrica habitual y/o en el Seguimiento de Niños de Alto Riesgo.

Antecedentes: Desde 1986 se incorporó en la consulta de RNT sanos con Riesgo Ambiental y en el Programa de Seguimiento de RNPret de PN ≤1.500 grs. el Test de desarrollo Psicomotor Infantil de 2 a 5 años (TEPSI) que contempla las áreas Motora, Lenguaje y Coordinación. Se elaboró un Plan de Intervención Oportuna hasta los 6 años para favorecer, facilitar y acompañar el desarrollo de las potencialidades infantiles con el apoyo familiar en una tarea multidisciplinaria.

Diseño: Se empleó el TEPSI (Hauessler M et al., de Chile), método de screening de alteraciones del desarrollo.

Población: Muestra de niños de 2-5 años del Programa de Seguimiento de Prematuros de la Maternidad Sardá.

Conclusiones: La vigilancia sistemática del desarrollo psicomotor forma parte del control y asistencia integral del niño y su familia. Permite el acompañamiento del desarrollo normal y la detección precoz de alteraciones que se pueden manifestar más tardíamente, relacionadas a los antecedentes perinatales, falta de oportunidades y/o trastornos vinculares. Se facilita la implementación de Intervenciones Oportunas y las derivaciones correspondientes a edades más tempranas.