Table 1 - Group A median values

Ganciclovir treatment	Before	During	After
Hemoglobin (g%)	12.5	10.7	12.1
Neutrophils (mm3)	4258.5	3378	3215*
Platelets (mm3)	63250	272000	175006

Table 2 - Group B median values

Ganciclovir treatment	Before	During	After
Hemoglobin (g%)	11.4	10.6	10.2
Neutrophils (mm3)	4700	4079	526*
Platelets (mm3)	72750	130233	18006

Conclusions: The authors concluded that the newborn infants that had been treated with Ganciclovir for a period of 3 months (group A) presented hematological evolution better than the group that was treated for a period of three weeks (group B) and the majority of newborn infants from group A showed CMV culture e CMV DNA negative shortly after the treatment. It is safe to assume that patients submitted to a prolonged treatment with Ganciclovir respond far better than the ones treated over a shurter period.

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INCIDENCE OF RESPIRATORY VIRUSES IN PRETERM INFANTS SUBMITTED TO MECHANICAL VENTILATION

Diniz E.M.A., Vieira R.A., Ceccon M.E.J, Ishida M.A.*, Souza M.C.O.*, Grassi M.S., Vaz F.A.C.

*Division of Neonatology, Department of Pediatrics, School of Medicine, University of São Paulo, São Paulo, Brazil, *Laboratory of Respiratory Viruses, Department of Virology, Adolfo Lutz Institute, São Paulo, Brazil*

Objectives: 1.To verify the incidence of infection by respiratory viruses in preterm infants submitted to mechanical ventilation. 2.To evaluate the clinical, laboratorial and radiological patterns of viral infections among hospitalized children in the Neonatal Intensive Care Unit (NICU) with respiratory failure. Methods: Seventy preterm infants were studied prospectively from November 2000 through July 2002. All neonates had the following protocol investigations: clinical, radiological and laboratorial data, including specific exams for respiratory viral pathogens: indirect immunofluorescence assay (IFA) with monoclonal antibodies and viral culture from nasopharyngeal aspirates. The presence of respiratory viruses in children´s nasopharyngeal was assessed at admission in the NICU and throughout the mechanical ventilation period. Blood culture was used for bacterial investigation. Results: Respiratory viruses were diagnosed in 20 preterm neonates (28.6%) with respiratory failure and that were submitted to mechanical ventilation. The most common admitting diagnose was hyaline membrane disease 18 (90.0%). Respiratory syncytial virus was detected in nine neonates (12.8%), Influenza A virus in eight (11.4%), Respiratory syncytial virus plus Influenza A virus in two (2.8%), and Influenza A virus plus Parainfluenza virus type 3 in one infant (1.4%). Most of the neonates with viral infection had the following characteristics: female 14 (70.0%), with average gestational age of 32.5 weeks (range 27.5-36.5 weeks) and with average birth weight of 1553 g (range 830-3050 g). The average age of hospital admission was 13 days of life (range 1-33 days). The main risk factors were: no breast feeding (p=0.022) and family history of respiratory infection (p=0.046). The most frequent clinical signs were: cyanosis in 17 cases (85.0%); fever in 10 (50.0%); rhinorrhea, wheezing and apnea in eight (40.0%); bradycardia in six (30.0%); and vomiting plus diarrhea in four neonates (20.0%). Eighteen neonates (90.0%) developed pneumonia during hospitalization while six infants (30.0%) presented sepsis. Respiratory viruses were associated to bacteria in six cases (30.0%). An alveolar infiltrate was present in 13 (72.2%), an interstitial infiltrate in five (27.8%) and atelectasis in 11 (61.1%) of the 18 patients with pneumonia. The average duration of mechanical ventilation was 17 days (range 1-96 days). From 20 preterm neonates with viral infection, only one unfortunately died. Conclusions: Although the majority of viral respiratory infections have a benign clinical co-

urse, some patients can present a serious clinical picture, mainly when the respiratory viruses involve preterm newborns. It is important to emphasize the need for early etiological diagnosis of these infections in order to choose the appropriate therapeutics and control the spread of the viral pathogens within the neonatal units.

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PRELIMINARY REPORT ON A NEW AND NONINVASIVE METHOD FOR THE ASSESSMENT OF FETAL LUNG MATURITY

Cosmi E., La Torre R., Anceschi M.M., Cosmi E.V., *Institute of Gynecology, Perinatology and Child Health, University "La Sapienza", Rome - Italy*

Object Several patterns of fetal breathing movements (FBMs) i.e., abdominal wall movements (AWm), thoracic wall movements (TWm), nasal fluid flow velocity waveforms (NFFVW) were investigated by ultrasound (US) technology and related to fetal pulmonary maturity and immaturity, i.e., fetal lung maturity (FLM) tests in order to validate the hypothesis that they may indicate that the fetal lung is mature or immature, regardless of gender, weight and gestational age.
Material and Methods We prospectively enrolled 143 high-risk pregnancies in which a complete US study of FBMs and FLM tests were performed. Among them 43 women satisfied the inclusion criteria. US-FLM was defined as the presence of regular NFFVW detected by pulsed Doppler and spectral analysis, or irregular NFFVW synchronous with TWm detected by M-mode. An US guided amniocentesis was performed in order to collect amniotic fluid (AF) and FLM was evaluated by L/S (lecithin/sphingomyelin) determination, presence phosphatidylglycerol (PG) and lamellar bodies (LBs) count. At the end of the study diagnostic accuracy of US-FLM was compared with that of FLM tests.
Results Diagnostic accuracy for US evaluation of FLM was as follow: sensitivity: 89,6%; specificity: 85,7%; PPV 92,8%; NPV: 80%. Diagnostic accuracy of FLM tests was as follow: sensitivity: 100%; specificity: 51,7%; PPV 100%; NPV: 50%. L/S determination predicted lung maturity with a sensitivity of 100%; specificity 93,1%; PPV 100%; NPV 87,5%.
Conclusion Presence of regular NFFVW or irregular NFFVW and TWm correlate accurately with conventional FLM tests.
We suggest that this noninvasive procedure may be helpful to assess FLM, particularly under certain circumstances, e.g., oligo-anhydramnios, laboratory logistic equipment difficulties or heavily stained AF samples, amniocentesis refusal, religious concerns.

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NONINVASIVE DIAGNOSIS BY DOPPLER ULTRASONOGRAPHY OF FETAL ANEMIA DUE TO PARVOVIRUS INFECTION

Cosmi E.,1 Mari G.,1 Delle Chiaie L.,2 Detti L.,1 Stefos T.,1 Bahado Singh R.,3 Murphy J.,3 Abuhamad A.,4 Hunter D.,5 Akiyama M.,1., *1Prenatal Diagnosis and Fetal Therapy Center, Department of Obstetrics and Gynecology, University of Cincinnati; Departments of Obstetrics and Gynecology: 2 University of Ulm, Germany, 3Yale University, New Haven, CT; 4East Virginia Medical School, Norfolk, VA - USA*

Objective: To evaluate the feasibility of the middle cerebral artery peak systolic velocity in the detection of fetal anemia in pregnancies complicated by parvovirus B 19 infection.
Study design: Doppler measurements of the middle cerebral artery peak systolic velocity were weekly performed in 32 fetuses at risk for anemia because of maternal parvovirus infection documented by the presence of IgM. The values of middle cerebral artery peak systolic velocity and hemoglobin were expressed as multiples of the median. Middle cerebral artery values were scattered on reference ranges previously established. A cordocentesis was performed either in presence of fetal ascites or when the middle cerebral artery peak systolic velocity values suggested moderate/severe anemia (middle cerebral artery peak systolic velocity > 1.50 multiples of the median).