

EVALUATION OF SMALL INTESTINE FUNCTION IN INFANTS WITH PERSISTENT DIARRHEA (PD) USING MONOCLONAL ANTIBODIES (MABs).

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MABs against enzymes of the brush border provide a new approach to evaluate intestinal lesions in severe PD. The 10 patients with PD in whom a small bowel biopsy was performed during 1992 were evaluated by means of MABs for lactase (L), sucrase (S), maltase (M) and amylase (A); results were compared with those of light microscopy, histochemistry for lactase, disaccharidase activities (Dalqvist) and clinical history. Diagnosis was DP and severe malnutrition (MN) in 4 cases, congenital sucrose intolerance (CSI) 1, cow's milk protein intolerance (CMI) 2, celiac disease (CD) 1, IgA deficiency 1 and cryptosporidiosis (Crypt) 1. The latter was the only child with a positive etiologic study.

code	diagn	LM	LH	Monoclonal antibodies				Dalqvist		
				L	S	M	A	L	S	M
1	SCI	2	3	3	4	3	3	1	3	2
2	PD/MN	1-2	1	1	4	1	2	1	5	2
3	PD/MN	2-3	1	1	1	1	1	1	2	1
4	CMI	2-3	1	2	1	3	2	1	2	1
5	Crypt	3	1	1	1	1	1	1	2	1
6	PD/MN	2-3	4	3	2	3	2	3	3	3
7	CMI	4	4	4	1	4	1	3	3	2
8	CD	4	4	3	1	2	1	3	3	2
9	PD/MN	2	1	1	1	1	1	1	1	1
10	IgA	1	1	1	1	1	1	1	1	1

LH and MABs: 1=67 -99%; 2=34 -66%; 3=1 -33%; 4=0. LM(light microscopy): 1 to 4. Dalqvist: 1=100%; 2=67 -99%; 3=34 -66%; 4=1 -33%; 5=0.

MAB for sucrase detected more enzyme than Dalqvist, which may be interpreted as that MAB binds non-functional molecules. In patient with CSI, MAB for sucrase detected less enzyme than Dalqvist, which is in agreement with the production of a defective molecule.

TRANSIENT MYASTHENIA NEONATORUM (TMN).

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TMN, secondary to transplacental passage of antibodies directed to acetylcholine receptors, has been reported in 10 to 12% of infants born to myasthenic mothers. Symptoms may appear at 72 hrs. or up to 7 days due to passage of maternal medication. It is a different entity from Congenital Myasthenia inasmuch as the latter has no maternal history of the disease. The present paper reports data from 6 infants born to myasthenic mothers between 3/88 and 3/93. We retrospectively considered perinatal data, symptoms attributable to TMN (hypotonia, absent/decreased reflexes, suction, facial expression, apnea/hypoventilation, and IMV requirements) use of antibiotics, response to medication and length of hospital stay. All mothers had received treatment (Prostigmin (R)) during pregnancy. Two infants had no symptoms out of the rest (2 brothers) all were hypotonic; 3/4 had apnea or weak suck; 3/4 required IMV, and all 3 received aminoglycosides after being placed on the ventilator; 2/4 had decreased reflexes and/or facial expression. All 4 received specific medication (Prostigmin (R)). Mean length of stay was 40 days. These data show that TMN may be more frequent than reported and entails increased neonatal morbidity. Although controversial, different maternal therapy (IVIG, steroids and/or plasmapheresis) might decrease the incidence of TMN.

EVALUATION OF A PREDICTIVE MODEL IN MIDDLE SOCIO-ECONOMIC STRATUM (M-SES) FAMILIES WHO RECEIVE MEDICAL CARE AT NATIONAL HEALTH SERVICE CLINICS. J. Espinoza, M. Araya, S. Cruchet, O. Brunser. INTA, University of Chile, Santiago Chile.

For several years we have been using a predictive model to characterize the morbidity of infants of the low socio-economic stratum (L-SES) with the aim of managing them in programs for high-risk children operated by the Primary Health Care System. Since the National Health Service also provides care for families of the M-SES we evaluated the model in this stratum. A total of 4605 and 1448 charts of children of the M-SES and L-SES, respectively, registered in Health Centers of eastern Santiago were reviewed. In 7.6% of M-SES and in 15.8% of the L-SES, the predictor was positive. Infants were visited weekly at home and their symptomatology was recorded. The results of the 30 infants of the M-SES and the 86 of the L-SES who met the requisites for incorporation and completed follow up are presented.

	M-SES	L-SES	p<
Predictor scores	36.5 ± 10.2	39.5 ± 12.7	NS
Total morbidity			
Mean n° episodes/child	5.1 ± 2.4	6.4 ± 2.3	0.01
Mean duration (days)	7.5 ± 3.1	10.9 ± 4.1	0.0001
Respiratory morbidity			
Mean n° episodes/child	3.3 ± 1.5	4.4 ± 1.9	0.007
Mean duration (days)	8.7 ± 3.5	13.1 ± 5.9	0.0002
Diarrheal disease			
Mean n° episodes/child	1.7 ± 1.5	1.5 ± 1.2	NS
Mean duration (days)	4.8 ± 6.0	4.3 ± 3.4	NS

The population evaluated differed only on their socio-economic variables. Total and respiratory morbidities were significantly less frequent among the M-SES while frequency of diarrheal disease was comparable. These results suggest that the predictive model operates in the M-SES for diarrheal disease only.

PRIMARY CARE (PC) OF THE PREGNANCY IN LA MATANZA: EFFICIENCY AND COST/BENEFIT RELATIONSHIP.

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There is a high frequency of low birth weight (LBW) (12,5%) and uncontrolled pregnant women (24%) among the impoverished population without social security in "La Matanza".

In order to modify these facts, we carried out an interventional study at "San Pedro" neighborhood. This population has 75% of family groups with unsatisfied basic needs and unsatisfactory perinatal care. The programme consisted in: 1) Primary care of all the pregnant women in the study area, 2) Family planning education, 3) A training programme for sanitary agents in charge of the pregnancy and home care. A case/control study was developed after two years. The control group was selected among the pregnant women attended in the "Diego Paroissien" Hospital (La Matanza). These patients have similar social and perinatal risk factors compared with the study group.

We observed in the study group a perinatal mortality (25%) and a LBW prevalence (7,5%), lower than the frequencies observed in the control group (36%) (12,3%) (p<0,01).

Primary care resulted in low perinatal morbidity and mortality and hypothetically diminished the number of LBW (n:34).

When porogramme costs and intensive care costs avoided were analyzed, we verified and important saving in health expenses (PC cost: 18570 dollars) (intensive care cost avoided: 53840 dollars) (saving: 35270 dollars). Conclusion: PC of pregnant women improves perinatal results in populations with poor initial outcomes. The investment in PC can diminish curative costs due to a decrease in LBW.

NECROTIZING ENTEROCOLITIS IN THE TERM NEWBORN INFANT.

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Necrotizing enterocolitis (NEC) is generally associated with prematurity. However 5-25% of infants with NEC can be term newborns (TNB). Etiology is unknown and pathogenesis is considered multifactorial. This study describes possible risk factors and main issues in TNB with NEC. We retrospectively analyzed possible risk factors in the records of TNB (=> 37 weeks GA) with proven NEC (=> 2 of Bell's criteria) admitted to the NICU between 4/88 and 4/93. Of proven NEC, 42% were in TNB with a mean birth weight of 3170 gms. Seven of them had asphyxia, 8 polycythemia, 7 had received an exchange transfusion, and 4 had heart failure. Fifteen TNB had associated pathologic conditions: 4 anorectal malformations, 7 congenital heart disease, and 1 each with meningomyelocele, toxoplasmosis and megacolon. Mean age at diagnosis was 12 days (1-60); 60% of TNB had been previously fed. Bacteria (mostly Gram - K. Pneumoniae:3) were isolated from either blood culture and/or peritoneal fluid in 8 TNB. In 18/23 TNB treatment was surgical (drainage and/or laparotomy); 5 underwent only medical management. Overall survival was 57%. These data show that TNB with known risk factors may also develop NEC and its consequences. We conclude that in TNB with these risk factors, early diagnosis and aggressive therapy can prevent severe NEC and its possible sequelae.

IgM ANTI-MYCOPLASMA PNEUMONIAE IN CHILDREN WITH PNEUMONIA.

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Pneumonia is an important cause of morbidity and mortality in children in Latin America. Several studies have shown that from 20 to 30% of pneumonias in general population may be caused by Mycoplasma pneumoniae (My pn), but its prevalence in our region is unknown.

We investigated the presence of IgM anti-My pn by ELISA in sixty-three children aged 0-10 years, with clinical diagnosis of pneumonia (confirmed by x-ray studies) between July 1992 and June 1993. Six children (9.5%) were affected by malnutrition, thirty-three (52%) were treated in our ambulatory care unit, and thirty-three (52%) had received antibiotics previously.

The IgM anti-My pn was positive in nineteen (30.2%). These patients (mean age 3.3 years) were significantly older than the sero-negative group (mean age 1.8 years) (p=0.05).

The seropositivity peaked in the month of September. No differences were found in radiological findings, initial symptoms, laboratory findings, nutritional state or socioeconomic status.

Although endemo-epidemic presentation with a peak in spring is characteristic of My pn, it is important to note the high prevalence of pneumonias due to My pn, and the age of presentation (children younger than six years old).