

INTRACRANIAL HEMORRHAGES IN VERY LOW BIRTH WEIGHT INFANTS (VLBW): EPIDEMIOLOGY IN OUR POPULATION. C.Solana, O.Albanese, S.Luján, C.Vecchiarelli, M.Larguía, L.Prudent. Clínica del Sol (Arenales) y Sanatorio Otamendi y Miróli, Buenos Aires, Argentina.

Intracranial hemorrhage (ICH) is a common event, often severe, in the neonatal period of VLBW. To establish the incidence and local epidemiology, we studied retrospectively the clinical histories and echocardiographies of neonates with birth weight less than 1500g, born between January 1987 and July 1988. From 98 newborns admitted in the ICU, 82(84%) were included in this study. We used the ICH classification of Papile et al. The mortality in the study group was 21.9%. In the table we report the factors with statistical significant association using the χ^2 and Student's t test as indicated (control group for these factors were the patients without ICH).

	ICH		GRADE			
	NO	YES	I-II	III-IV	P	
N	44(54%)	38(46%)	31(82%)	7(18%)		
Mortality	6(14%)*	12(32%)*	9(29%)	3(43%)	<0.05*	
Birth weight	1165±208*	996±242*	1007±252	945±202*	<0.001*	
Gestational age	30.2±2.8*	28.4±2.3*	28.4±2.5*	28.4±1.6	<0.01*	
Apgar 1 minute	6±3*	4.5±3*	5±3	2.4±1.6*	<0.025*	
Apgar 5 minutes	8.3±2	7.2±2	7.4±2.2	6.3±1.1	<0.05	
Fetal distress	10(24%)*	11(33%)*	7(26%)*	4(67%)*	<0.05*	
ET intubation	19(45%)*	28(78%)*	21(72%)*	7(100%)*	<0.01	
RDS	7(9%)*	17(45%)*	12(39%)*	3(71%)*	<0.005	
P E	2(5%)*	9(24%)*	7(23%)*	2(29%)*	<0.025	
Mechanical vent.	27(61%)*	31(82%)*	24(77%)*	7(100%)*	<0.05*	
First three days:						
pH<7.1	1(2%)*	6(16%)*	4(13%)*	2(29%)*	<0.05*	
PaCO2>60	7(16%)*	16(42%)*	12(39%)*	4(57%)*	<0.01	

We conclude that lower birth weight and gestational age, perinatal asphyxia and the respiratory distress syndrome are factors related with a statistical higher risk of presenting ICH.

RISK OF NEONATAL POLYCYTHEMIA (NP) IN INFANTS OF HYPERTENSIVE MOTHERS (HT). M.T.Mazzucchelli, I.Kurlat, A.Sola. Hospital de Clínicas "José de San Martín", U.B.A., Buenos Aires, Argentina.

NP is a frequent finding in complicated pregnancies. It has been associated with intrauterine growth retardation (IUGR), diabetes and maternal hypertension. However it is still not clear whether the association with hypertension is the result of hypertension per-se or of IUGR. To determine the risk of NP in infants of HT mothers we analyzed the hematocrit values obtained from neonates born at the Hospital de Clínicas from January 1986 through July 1987.

GROUP	N	NP	%
HT	101	6	5.9
HT + IUGR	19	4	19
HT + IDM	8	2	25
HT + IUGR + IDM	3	0	-
IUGR	33	1	3.03
IDM	10	2	20
LGA	14	3	21.4
NORMAL	1404	7	0.49
TOTAL	1592	25	1.5

The risk of NP in infants of HT was 12.6 times greater than the risk of the general population (95% Confidence limits (CL): 5.3-30.1; $\chi^2 = 5.7$; p=.017). The risk of NP in IUGR was 6.05 (95%CL: .937-39.03; $\chi^2 = 1.891$; p=.169). The risk of NP in HT+IUGR was 8.5 times the risk of NP in IUGR without HT (95%CL: 1.15-62.98; $\chi^2 = 2.101$; p=.15) and 53 times greater than the risk of the general population (95%CL: 14.3-198.4; $\chi^2 = 10.15$; p=.001). Considering the incidence of NP in the population, the attributable risk (etiologic fraction) for HT is 5.9%.

These data show that maternal HT poses a significant risk for the development of NP, regardless of fetal growth.

Speculation: IUGR could represent the failure of chronic adaptive mechanisms that the fetus develops to compensate for altered placental blood flow.

We suggest that hematocrit values be obtained on all infants of HT mothers, regardless of growth status, in order to rule out NP.