121 DEVELOPMENTAL ABNORMALITIES IN CHILDREN WITH ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS). Monica H. Ultmann, William Levinson, Holly Ruff, Brian Novick, Arye Rubinstein, and Herbert J. Cohen. Department of Pediatrics and Rose F. Kennedy Center, Albert Einstein College of Medicine, Bronx, N. Y.

An AIDS-like disease in infants was first described in 1982, with 2 types of clinical pictures reported: a full-blown syndrome and a prodromal stage. Some adults with AIDS have a progressive encephalopathy and suble cognitive changes. A study was initiated to determine whether 6 AIDS children, ages 10 mos. to 6 yrs. exhibited developmental abnormalities. Four children were hospitalized and 2 were examined in the OPD. Five had the full syndrome and 1 the prodrome. Parents used IV drugs in 5 cases, and in 2 cases mothers died of AIDS. Two children were siblings. Neurodevelopmental and psychological examinations were given using Bayley Scales for children < 30 months and the Stanford-Binet for older children. The 4 inpatients had microcephaly and failure-to-thrive; 3 had spasticity, 1 had seizures, and 1 regressed. All 4 scored < 50 on the Bayley. The 2 outpatients, each over 5 yrs., had IQs of 67 and 71, and scored well below normal on language tests. Therefore, all subjects were retarded. Whether this is due to AIDS itself or other factors is uncertain. A larger number of AIDS children and a comparison group of offspring of drug-addicted mothers without AIDS are being studied to clarify the etiology of the developmental abnormalities.

122 RELATIONSHIP OF DEVELOPMENTAL OUTCOME TO ACQUISITION OF TERM MILESTONES AND TO IVH IN VLBW INFANTS. R. Mitch Voelker, Murdina M. Desmond, W. Daniel Williamson, Marta H. Lifschitz, Susan D. Thurber, Geraldine S. Wilson, E. O'Brian Smith. Baylor College of Medicine, Texas Children's Hospital, Department of Pediatrics, Houston.

Thirty-eight VLBW infants were evaluated in terms of achievement of 5 milestones by 40 weeks post-conceptual age (PCA). These were the ability 1)to breathe without assistance, 2)to breathe room air, 3)to take total oral feedings, 4)to be free of apnea and/or bradycardia, and 5)to maintain stable body temperature in an open crib. Developmental performance was evaluated at 13 to 41 mos. using the Bayley Scales (MDI) or the McCarthy Scales (GCI). A significant difference with respect to outcome ($p<.01$) was found for patients achieving all milestones (Group A) versus those attaining 4 or fewer (Group B). (See Table)

	n	Gest. Age (wk) Mean (Range)	B. Wt. (gms) Mean (Range)	IVH n	MDI or GCI Mean (±1 SD)
Group A	27	28.3 (26-31)	1070 (690-1500)	14	81.4 (19.0)
Group B	11	27.3 (26-30)	970 (710-1100)	10	61.8 (20.3)

The presence of & grade of IVH was also significantly related to outcome ($p<.002$). Significance was retained for both milestones ($p<.05$) & IVH($p<.01$) when regressed together on outcome, but IVH did not affect milestone attainment($p<.25$). When considering grade of IVH, SES, birth wt. & milestone attainment simultaneously, IVH became the single factor significantly related to outcome ($p<.005$). Thus, although there is a significant relationship between milestone achievement at 40 wks PCA & outcome, severity of IVH has the most significant association with performance.

123 INCREASED MORBIDITY IN LONG TERM FOLLOW-UP OF LOW BIRTH WEIGHT (LBW) SURVIVORS WITH STAGE III-IV RETROLENTAL FIBROPLASIA (RLF). Betty R. Vohr, Cynthia Garcia Coll, William Oh. Brown Univ., Women & Infants Hosp., Dept. of Ped., Prov., RI.

14 of 645 (2.2%) of ICU survivors with a birth weight (b.w.) ≤1500 gm. cared for in the ICU between 1975 and 1981 were identified as having Stage III to IV RLF in 1 or both eyes. The RLF survivors and 14 controls (C) matched for b.w. (±200 gm.) have been followed for up to 7 yrs. There were no differences between RLF and C in b.w. (985±226 vs 999±214 gm.); gest. (28±1 vs 28±2 wks.), Hollingshead SES (28±13 vs 29±8), or multiple neonatal risk factors. The only sig. diff. was in prolonged O_2 requirements (>2 wks.) 13 of 14 RLF vs 7 of 14 C infants ($p < .025$). As shown in the table below, the RLF survivors had lower IQ's, ↑incidence of neurologic abnormality (Ab), ↑hospitalizations, ↑requirements for early intervention (E.I.) and ↑need for special education (Sp. Ed.). A trend for ↑stress was also observed in the mother's adapted Life Experience Survey ($p<.05$), and ↑family unit breakdown (57% vs 28%).

BAYLEY DQ	STANFORD BINET					Neuro.	#		Sp.
	1 Yr.	2 Yr.	3 Yr.	4 Yr.	5 Yr.	Ab.	Hosp.	E.I.	Ed.
RLF	63±17	51±4	53±8	66±23	70±24	7/14	3.0±4	14/14	13/14
C	96±15	87±23	92±18	98±16	105±17	2/14	1.6±2	6/14	1/14
P	<.001	<.001	<.001	<.005	<.01	<.05	<.001	<.005	<.005

We conclude that LBW RLF survivors require multidisciplinary care after discharge from the ICU, and social support services should be implemented in anticipation of greater family unit disruption.

124 LONG-TERM OUTCOME OF GROUP B STREPTOCOCCAL MENINGITIS. Ellen Wald, Ira Bergman, Darlene Chiponis, Kim Kubek. University of Pittsburgh School of Medicine, Children's Hospital of Pittsburgh (CHP), Pittsburgh, Pennsylvania.

Group B Strentococcus (GBS) is the most common cause of neonatal meningitis. The purpose of this study was to evaluate the neurologic, psychologic, and academic status of children who had GBS. Patients were identified by chart review of the records at CHP and Magee-Womens Hospital for the period 1965-1980. Fifty-one children (26 girls and 25 boys) who developed GBS between 1 day and 6 months of life formed the study population. Infants with early onset GBS sepsis with shock were excluded. Survivors were 3 to 18 years old at the time of their follow-up evaluations. Nine children died, two were institutionalized, 13 were assessed by phone interview and one was lost to follow-up. Twenty-six children and 16 siblings were comprehensively evaluated with physical and neurological examinations, hearing tests, and tests of intellectual and behavioral function. Of the total population, 7 children (14%) had major neurological sequelae (spastic quadraplegia, profound mental retardation, hemiparesis or deafness). Five children developed acute hydrocephalus; two were doing well after shunt placement. When ten study children (without major neurologic sequelae) and close-in-age sibling controls were compared, mean full-scale IQs on WISC-R/WPPSI were 107 in the study group and 111 in the controls. Of importance, 26 children appeared to be functioning normally or comparably to their sibling in all respects. There was no apparent relationship between outcome and age at onset, birthweight or CSF pleocytosis.

125 HANDEDNESS AND SPEED OF HAND MOVEMENTS IN RELATION TO COGNITIVE AND NEUROLOGICAL STATUS AT 6 YEARS. Ina F. Wallace (Spon. by Herbert J. Cohen) Depts. of Psychiatry & Peds., Albert Einstein Coll. of Medicine, Bronx, NY

The establishment of handedness in the pre-school years is believed to be a reflection of lateralization so that children who have not established handedness by school age are thought to have a less mature nervous system. Handedness and speed of executing hand movements were examined in relation to cognitive and neurological outcome in 68 LBW children who were part of a longitudinal follow-up. Five (7%) of the children demonstrated no hand preference and another five (7%) had mixed hand and foot preference. No significant difference in IQ was found between children with no clear hand preference and those with established handedness. However, those with no hand preference had significantly lower scores on measures of reading and visual-motor integration. Secondly, children who had not established handedness were significantly slower in executing hand movements with their left hand as compared to the speed in the non-dominant hand of children with established handedness. The former group was also slower in speed with their right hand as compared to the speed in the dominant hand of the lateralized children. Children who showed mixed lateralization were indistinguishable from the fully lateralized group. In the entire group, speed in both the dominant and non-dominant hands was related to reading and visual-motor integration but not to IQ. Both the establishment of handedness and speed of executing hand movements appear to reflect competence in neurodevelopmental functioning and may be predictive of performance on school related tasks.

126 EVALUATION AT 4-5 YEARS OF SURVIVORS OF NEONATAL INTRACRANIAL HEMORRHAGE. Margaret L. Williams, Larry Lewandowski and Diane B. D'Eugenio. SUNY, Upstate Med. Ctr., Dept. Ped. and Syracuse U. Dept. Psych., Syracuse, NY.

Twenty-seven children of birthweight less than 1500 grams who had brain CT scans in the newborn period were evaluated at 4-5 yr. Physical and developmental measures were contrasted in 9 children surviving intracranial hemorrhage (ICH) and 18 without hemorrhage (C). Previous Bayley Scales had been performed in the first 12 months.

Mean scores on the McCarthy Scales differed between the ICH and C groups: General Cognitive Index 76.8±21.4 vs. 95.0±17.6*, Verbal 37.0±11.2 vs. 48.3±10.8*, Performance 37.1±12.0 vs. 48.3 ±8.5†, Motor 32.8±9.7 vs. 46.1±11.4†. Quantitative and Memory scales did not differ between groups. Correlation between Bayley MDI and McCarthy GCI was .74, although Bayley scores of ICH and C had not differed significantly. Within the ICH group, severity of hemorrhage correlated positively with mental development. Measures of lateralization (grip, finger tapping, and reaction time) showed no asymmetries in either group.

Height and weight did not differ between groups, but head circumference was <5% in 3 of 9 ICH and 0 of 18 C. Three ICH children had neuromotor abnormality, but none showed lateralized dysfunction. Similarly, no lateralized neurocognitive deficits were found. At 4-5 yr., overall performance was compromised in infants who had suffered ICH.

* $p<.05$
† $p<.01$