

781 INCIDENCE AND SIGNIFICANCE OF DYSTONIA IN THE LOW BIRTHWEIGHT INFANT. S. Malin, M. Hoffman-Williamson, A. Daft, J. Bernbaum, (Spon. by W.W. Fox).

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Dystonia (DT) is a common problem in the low birthweight infant. In order to investigate the incidence of DT and the relationship between persistent DT and developmental delay, we performed neuromuscular and developmental evaluations on 132 infants with BW \leq 1750 g (45 have reached their 3 yr exam, 33 have reached 2 yr, 35 have reached 18 mos. and 19 have reached 12 mos.). Hypertonicity is the most common type of DT with a peak incidence of 83% at 6 months corrected age (CA). In contrast, hypotonicity is relatively uncommon, with a peak incidence of 18% at 3 mos. CA. Resolution of DT occurs steadily; at their latest exam, 70% of 18 mo. olds, 86% of 24 mos. olds and 92% of 3 year olds had normal tone. Developmental scores of the normal (No DT) and the dystonic members of the 18, 24 and 36 mos. cohorts were compared. The results of developmental testing (mean \pm SD) are summarized below.

| | 18 mos. MDI | 24 mos. MDI | 36 mos. MDI |
|---------------|-------------|-------------|------------------------|
| DT at 18 mos. | 88 \pm 12 | | |
| DT at 24 mos. | | 86 \pm 13 | |
| DT at 36 mos. | | | 70 \pm 26* (p < .05) |
| No DT | 94 \pm 9 | 95 \pm 15 | 87 \pm 14 |

Conclusions: Dystonia in most preterm infants less than 2 yr CA should be considered a common but transient problem. Persistent dystonia, however, occurs in a small number of infants and should be viewed with concern. The developmental progress of those infants should be carefully assessed.

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Office Laboratory procedures are an important aspect of primary care. Effective laboratory skills programs are difficult to implement during residency training. Selected components of a previously reported, successful curriculum in laboratory medicine were implemented in two residencies (SA & OK). To determine which components of the curriculum were necessary for success, a prospective comparison of acquisition of knowledge & skills between these residents was completed.

Residents in SA (N=8) & OK (N=16) had the same video-taped lectures, standardized test-teach sessions & the option to use a small office lab in their continuity clinic. In SA the lab was staffed by a technician who provided teaching, service & coordinated a 1 month laboratory rotation. Based on a blindly scored 51 item cognitive written and 50 item lab performance exam, residents in SA & OK showed marked deficits at the start of the PL-1 year in microbiology, hematology & quality control.

Using covariate analysis to adjust for differences in pre-test scores, SA PL-2's received higher scores on all written subtests with significant differences in 6/10 areas (p=.01 to .002). In only 3 of 8 skill subtests did both groups improve. Scores decreased for both groups in 3 subtests. Only in the performance of white cell counts were SA scores significantly (p.007) improved over OK. Thus, (the availability of) an on site lab technician enhanced resident cognitive learning but did not improve performance skills.

783 IDENTIFICATION OF SERIOUS ILLNESS IN FEBRILE INFANTS UNDER 60 DAYS BY PEDIATRIC RESIDENTS: COMPARATIVE EVALUATION OF THE "MCCARTHY OBSERVATION SCALE" AND A SIMPLE QUESTIONNAIRE. Mahesh G. Naik, Gurpreet S. Chhatwal, Maria T. Antonio, Aditya Kaul and Donald S. Gromisch. (Sponsored by Lawrence R. Shapiro). New York Medical College, Lincoln Medical and Mental Health Center, Department of Pediatrics, Bronx, New York

A logistic regression based Observation Scale (O.S.) was shown by McCarthy et al to be a sensitive predictor of serious illness in children, when used by experienced pediatricians.

A prospective study was begun in January 1984 to compare the predictive efficacy of the O.S. in comparison with a simple yes/maybe/no questionnaire (Q) when used by pediatric residents. Of 109 infants <60 days hospitalized during this period, 52 were found to have serious illness. Linear regression and correlation co-efficient matrices were obtained using outcome as the dependent variable. High correlation coefficients were seen with the Q, band count, temperature, WBC count, whereas the O.S. showed very low correlation, particularly when used by junior residents (r=.06). The sensitivities of the O.S. and Q were 46% and 67% respectively, while the specificities were 73% and 58% respectively. When combined with an abnormal WBC count (<5000 or >15000/mm), the sensitivity of both the O.S. and Q increased.

The simple Q was found to be better than the O.S. for identifying serious illness in febrile infants 60 days. The sophisticated O.S. may well be a good predictive tool only when used by experienced clinicians.

784 EFFECTS OF CONCURRENT ANTIBIOTICS ON PAIN MEDICATION REQUIREMENTS Karen N. Olness

In vitro human brain studies have indicated that aminoglycoside antibiotics may inhibit degradation of enkephalins. This study was designed to determine if requirements for pain medications in hospitalized children vary in relation to concurrent antibiotics. No published information exists concerning possible variations in amounts of pain medications required when children are concurrently receiving antibiotics. Charts of 420 children consecutively admitted to Minneapolis Children's Medical Center for surgical procedures were reviewed. Children were included in the study if they were between 2 and 17 years; were not on antibiotics or pain medications; had no prior training in self regulation techniques; and hospitalization totaled 3 days or more. Data analyzed included age, sex, diagnosis, procedures, frequency and amount of pain medications; time, frequency and amount of antibiotics; and total days of hospitalization. The study included 284 children. Of these, 118 received no antibiotics; 59 received aminoglycoside antibiotics; and 107 received non-aminoglycoside antibiotics only.

Children on aminoglycoside antibiotics required significantly less narcotics on day 1 but an amount equal to non-aminoglycoside antibiotics on days 2 and 3. Children receiving aminoglycoside antibiotics received more doses of all pain medications than did other children; no differences were found when compared for prophylactic or therapeutic indications. Of 12 children who required no pain medications over the first 3 days of hospitalization, 7 were on aminoglycoside antibiotics and 5 were on other antibiotics.

785 TRANSCUTANEOUS MONITOR (TCM) RECORDS: PATTERNS OF ACQUISITION AND DISPOSITION IN THE UNITED STATES.

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Medicolegal questions exist regarding the need for and disposition of permanent records of TCM results. Because national norms for handling of TCM records should be helpful in establishing a medicolegal precedent, we surveyed 122 institutions to determine national habits of acquisition and disposition of TCM records. Seventy-one (58%) institutions using TCM responded with the following results:

| | |
|--|---------------|
| TCM records | 64 (90%) |
| Disposition of TCM records | |
| Discarded immediately after use | 40/64 (62.5%) |
| Retained in permanent records | 24/64 (37.5%) |
| Routinely | 16/64 (25%) |
| Special circumstances | 8/64 (12.5%) |
| Location of TCM record storage | |
| Medical records: Hospital-17/24 Dept.-5/24 Both-2/24 | |
| Form of TCM record used for storage | |
| Original strip recording | 19/24 |
| Transcription of strip recording | 3/24 |
| Both | 1/24 |
| Microfilm of strip recording | 1/24 |

Of 71 responding institutions, 66% maintain no permanent copy of TCM results, and only 22% routinely maintain TCM records. Therefore, maintenance of permanent TCM records cannot be considered standard practice in the United States.

786 CARE OF INFANTS WITH NONORGANIC FAILURE TO THRIVE: A MULTIDISCIPLINARY TEAM APPROACH.

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Nonorganic failure to thrive (N-O FTT) is associated with abnormal psychosocial characteristics in the family, and prognosis for physical, behavioral and cognitive development is poor. In a multidisciplinary program aimed at providing comprehensive medical care, psychosocial support, and parent education to teach child-rearing practices based on the child's development and enhanced parent-child interaction, team members (pediatric nurse associate, nutritionist, social worker and parent educator) saw the family at 1- to 4-week intervals over a 6-month to 2-year period. As evaluated by standard growth charts, all 10 patients in the study group significantly improved (> 2SD) in weight within 1-4 months and in height in 1-3 months and maintained that improvement, head circumference and scores on the Cattell Intelligence Scale were not delayed in most patients, and pre- vs postscores on the Parenting Stress Index improved in both child and parent domains. Among age- and sex-matched controls (followed in continuity-care clinics), only infants placed in foster care similarly improved. A few infants with fetal alcohol syndrome enrolled in the study and reared by foster parents did not significantly improve in growth. A comprehensive multidisciplinary program effectively provides psychosocial support to the parents and restores normal growth in children with N-O FTT. Longitudinal studies are needed to show persistent beneficial effects.

Supported by the Institute of Mental Hygiene of the City of New Orleans.