

- 31 **TESTICULAR CANCER: ADOLESCENT ATTITUDES AND KNOWLEDGE** Rosalind M. Vaz, Deborah L. Best, and Stephen W. Davis, The Bowman Gray School of Medicine of Wake Forest University, N.C. Baptist Hospital, Departments of Pediatrics and Family Medicine, Winston-Salem, North Carolina. (Sponsored by Jon S. Abramson)

While there are many advocates of testicular cancer (TC) education, little is known about the adolescent male's attitude towards TC, knowledge of TC, or whether he is receiving this education in the physician's office. As a first phase in a three year project on TC education in the public school system, 1200 grade 10 males, mean age 16.7, 63% white 34% black, were given an 85 item validated pretest questionnaire. While 22% had heard of TC, none knew how to correctly perform Testicular Self-Examination (TSE). Analysis of the attitude questions measured on a 7 point scale (7=strongly agree) showed that adolescents are afraid of getting TC ( $\bar{x}=5.62$ ), are unsure about whether it could happen to them ( $\bar{x}=3.81$ ) or whether it could be self-diagnosed ( $\bar{x}=3.39$ ), but did feel that recovery is more likely with early diagnosis ( $\bar{x}=5.38$ ). Black adolescents were less knowledgeable about and more afraid of getting TC ( $p < .01$ ), than white adolescents. Although 58% reported having a complete physical examination by an MD within the previous year, <2% reported being taught TSE. There were no race differences in physician utilization. Having seen an M.D. within the past year made no difference in knowledge or attitudes toward TC. This data shows that the adolescent male has little knowledge and some anxiety about TC, does not know how to perform TSE, and is receiving little education during the routine physical exam.

- 32 **SEXUAL MATURATION IN MEXICAN-AMERICAN ADOLESCENTS: HISPANIC HEALTH AND NUTRITION EXAMINATION SURVEY.** Sylvia F. Villarreal, Fernando Mendoza, Reynaldo Martorell. Robert Wood Johnson Clinical Scholars Program. University of California, San Francisco, and Dept. of Pediatrics, Stanford University, Stanford, California. (Spon. by Moses Grossman)

Hispanic Health and Nutrition Examination Survey (HHANES) was conducted by the National Center for Health Statistics to produce estimates of the health of U.S. Hispanics. HHANES data are used to describe the secondary sexual characteristics of 1,491 Mexican-American adolescents, 728 females and 723 males, ages ten to seventeen. Estimates were made by the status quo method, which utilizes the percentage of each sexual maturation stage plotted against age. To this percentage distribution, a probit transformation was applied. Median transitional ages for female breast development (B): B2 10.91, B3 12.0, B4 13.75, B5 15.00; female pubic hair development (PH): PH2 11.16, PH3 12.25, PH4 14.00, PH5 15.41. Ages for entry to puberty stages for male genitalia development (G): G2 12.25, G3 13.25, G4 14.50, G5 16.08; male pubic hair development: PH2 12.5, PH3 13.25, PH4 14.5, PH5 16.0.

Confidence intervals for both Mexican-American female and male sexual maturation stages are similar to those published for U.S. and British standards. This is the first cross-sectional data for Mexican-American adolescent sexual maturation and probit analysis of a U.S. adolescent population.

- 33 **SHORT-TERM TESTOSTERONE THERAPY FOR PUBERTAL DELAY (PD).** Darrell M. Wilson, Jocelyn Kei, Raymond L. Hintz, Ron G. Rosenfeld, Stanford University School of Medicine, Department of Pediatrics, Stanford CA

PD can be a significant problem for adolescent males. To determine the long term efficacy of a short course of androgen therapy (4 injections of 200 mg testosterone enanthate (T) every 3 wk), we have reviewed 59 PD subjects (age 13.5-17.1 yr) who received either T (n=37) or no therapy (C, n=22). Initially, subjects were Tanner stage 1 or 2. Follow-up data were collected 6 and 12 mo later. Questionnaires were sent to subjects whose initial visits were > 2 yr ago (return rate, 44% for T, 33% for C). To eliminate the effect of age, height data are expressed as Z-scores (HT-Z). (mean±SEM, \* - difference  $p < 0.05$ )

Initial age	Bone age	HT-Z	+6mo HT-Z	+12mo HT-Z
T 15.0±.5*	12.6±.1*	-3.3±.08	-2.9±.11	-2.6±.13*
C 14.5±.2	11.6±.3	-3.2±.12	-3.2±.21	-3.1±.19

Preliminary adult HT-Z data from subjects older than 17 yr reveal no significant difference. Survey results indicate 90% of those who received T were quite satisfied and would undergo T treatment again. Increased height, sexual maturation, and self-confidence were all given as major factors in this decision. Side effects were minor: one allergic reaction to the vehicle, mild edema, and occasional joint discomfort. Although HT-Z at 12 mo was greater in the T group, preliminary data suggest no significant effect of this therapy on final adult height. T given in this manner does not decrease final height and is a safe and effective therapy for PD.

## BEHAVIORAL PEDIATRICS

- 34 **VERBAL AND NONVERBAL MEMORY AMONG CHILDREN WITH RIGHT OR LEFT BRAIN LESIONS.** D.M. Aram, B.L. Ekelman, J.M. Fletcher (Spon. by R. Martin), Case Western Reserve University, Dept. of Pediatrics, Cleveland.

No previous studies of memory in children with left or right brain lesions have been reported, despite known sequelae in other aspects of learning. Memory for verbal (V) and nonverbal (NV) stimuli was evaluated here through a selective reminding task in which animal names (V) and dot patterns (NV) were learned over 8 trials. Measures of V and NV long-term storage (LTS) and cumulative long-term retrieval (CLTR) were made. 18 left lesioned (LL), 13 right lesioned (RL), and 31 age, sex, and SES matched control (C) children were included. All LLs and RLs had CT scan confirmation of unilateral lesions of vascular origin and were > 1 yr. post lesion onset. M age at lesion onset was 4.05±4.59; M age at test was 9.42±3.89. M IQ for all groups was within normal limits, but IQ for RLs was significantly lower than for Cs. M T-scores, derived from age norms, SD and Ms adjusted for IQ differences\* were:

	V LTS	NV LTS	V CLTR	NV CLTR
LL	9.67±3.85	10.43±2.57	8.86±3.20	10.66±3.88
RL	7.91±2.88 (8.17)+	9.64±3.01 (9.92)+	8.49±2.81 (9.33)+	9.62±3.32 (9.82)+
C	10.58±2.18 (10.47)+	11.33±3.42 (11.21)+	10.52±3.48 (10.17)+	12.06±4.13 (11.98)+

Multivariate analyses revealed significant differences as noted above. These findings suggest that LLs store V and NV information, but do not retrieve V information normally. RLs have difficulty retrieving NV and also storing V information, possibly due to attentional limitations. These memory deficits correspond to lesion lateralization and hold implications for education.

- 35 **SCHOLASTIC APTITUDE AND ACHIEVEMENT AMONG CHILDREN WITH UNILATERAL BRAIN LESIONS.** D.M. Aram, B.L. Ekelman (Spon. by M. Hack), Case Western Reserve University, Dept. of Pediatrics, Cleveland.

Brain lesioned children recover more rapidly and completely than adults; however, the extent of recovery and limits in terms of age of onset and lesion location is not known. The present study reports scholastic aptitude and academic achievement for 20 left hemisphere lesioned children (LL M age=11.1 yrs.; SD=4.1) and 12 right hemisphere lesioned children (RL M age=8.3 yrs.; SD=3.3) in comparison to peers matched by age, sex, race and social class. All lesioned children presented CT or MRI confirmed unilateral lesions of vascular origin sustained at least 1 year prior to testing (M onset: LL=4.9 yrs.; SD=5.4; RL=2.3 yrs.; SD=1.9). Despite normal Verbal IQ's comparable to controls, lesioned children performed significantly poorer on much of the Woodcock-Johnson Psycho-Educational Battery. Of the Scholastic Aptitude Clusters, LL children performed lower than left controls (LC) on the reading, math and written language clusters (F=4.02;  $p < .05$ ), while the RL group performed significantly lower than RC on these and the knowledge cluster (F=7.95;  $p < .01$ ). On the Academic Achievement Clusters, LLs performed lowest on written language (F=6.83;  $p < .01$ ), while the RLs performed lower than RCs on reading, math and written language (F=5.96;  $p < .05$ ). Age at lesion onset was not related to performance. LLs with subcortical lesions tended to perform poorer than those with cortical lesions, while the reverse pattern was observed among RL children. In sum, LLs present profiles of specific scholastic difficulties while RLs present more generalized scholastic limitations, possibly secondary to attentional deficits.

- 36 **CRYING IN !KUNG INFANTS: A TEST OF THE CULTURAL SPECIFICITY HYPOTHESIS.** Ronald Barr, Mel Konner, Roger Bakeman, Lauren Adamson. McGill, Emory and Georgia State Universities, Montreal Children's Hospital, Dept. of Pediatrics, Montreal, QC, Canada.

The crying of normal and "colicky" infants increases in duration until six weeks of age and declines to baseline by four months. To determine whether this pattern is specific to infant care practices typical of Western industrialized societies, cry and fret behaviour was analyzed in infants of the !Kung San, a hunter-gatherer society whose infant care includes continuous carrying and feeding, upright posture, and maternal responsiveness—all of which affect crying behaviour. Six 15-minute timed 5-second interval observations were carried out at 68 age points on 33 infants between one and 99 weeks of age. Frequency and total duration of cry/fret episodes per waking hour estimated for each age point were assigned to one of 7 age periods.

Cry/fret duration (min/hr) varied significantly with age (ANOVA F=3.85; df 6,61;  $p < 0.002$ ) with the peak at 3 months (4.5 min/hr) returning to baseline by 5 months (1.7 min/hr). The patterns were similar and significant when cry duration (F=2.47; df 6,61;  $p = .03$ ) and fret duration (F=3.47; df 6,61;  $p = .002$ ) were considered separately. Frequency of cry/fret episodes showed the same pattern (3 month peak = 20/hr; 5 month baseline = 12/hr) but was not significant (F=1.5; df 6,61;  $p = 0.19$ ).

Conclusion: Despite infant care practices differing markedly from our own, the similar pattern of infant cry/fret behaviour in !Kung infants implies that this pattern is not specific to industrialized societies. The early crying peak may represent a behavioural universal characteristic of the species.