

## ADOLESCENT MEDICINE

**1** A ROLE FOR LAPAROSCOPY IN THE MANAGEMENT OF ADOLESCENTS WITH CHRONIC SALPINGITIS. K. Hein, S. Kleinhaus, M. Mayer, M. I. Cohen, I. F. Litt, Albert Einstein Coll. Med. Montefiore Hosp. & Med. Ctr., Dept. Ped. & Surg., The Bronx, New York.

The prevalence of venereal disease among adolescents has resulted in a rise in chronic salpingitis. Laparoscopy was evaluated as an aid in the diagnosis and treatment of chronic salpingitis in 21 adolescents over a 3 year period. Indications for laparoscopy included: failure to respond to a standard antibiotic regimen, persistence of adnexal mass, or preference in basing therapy on laparoscopic findings. The patients had a mean age of 17½ years and a mean duration of symptoms of 5½ months. Half of the patients had a recent history of vaginal discharge and/or bilateral pelvic pain and/or a history of previous treatment with penicillin. On examination, 55% had pain on motion of the cervix, 75% had adnexal tenderness, half had a palpable adnexal mass and 1 had a positive cervical culture for *N. gonorrhoeae*. Anatomic findings at laparoscopy included normal pelvic structures in 7, acute salpingitis in 7 and chronic adhesions or scarring in 7. Anaerobic, aerobic and viral peritoneal cultures obtained at laparoscopy from 14 patients resulted in no growth in 10. The 4 with positive cultures had 1 organism identified in each case. Since a definitive diagnosis was made in 21 patients undergoing laparoscopy, treatment could be individualized and consisted of observation in 5, initiation of antibiotic treatment in 12, cessation of antibiotics in 3 and salpingoophorectomy in 1. Anatomic findings were more helpful than the bacteriologic analysis. This experience suggests that laparoscopy increases diagnostic accuracy in management of chronic salpingitis.

**2** HEMODYNAMIC (HD) FEATURES OF HYPERTENSION AMONG HIGH SCHOOL STUDENTS. A. Hernandez, D. Goldring, S. Choi, S. Londe, M. Sivakoff and C. Britton. Washington U. Sch. of Med., St. Louis, Mo.

HD of 111 hypertensive (H) high school students and their response to exercise were determined by non-invasive techniques and compared with 67 normotensive (N). Left ventricular ejection time (LVET) and pre-ejection period (PEP) were determined from simultaneously recorded electrocardiogram (ECG), phonocardiogram and external carotid pulse tracings, cardiac index (CI), ejection fraction (EF), mean velocity of circumferential fiber shortening (Vcf) and percent shortening of internal diameter (SID) of the left ventricle were measured by echocardiography. Exercise was performed on a bicycle ergometer against 3 work loads ending with a 10 minute rest period. Heart rate (HR) and blood pressure (BP) were monitored during and after the exercise. ECG-VCG showed mild left ventricular hypertrophy in 40% of male H and 19% of female H. PEP was significantly shortened, PEP/LVET decreased in H when compared with N. CI was lower and EF, Vcf and SID higher in the H. The peak HR and BP during exercise in H were significantly higher and their return to baseline levels slower than N. The HD response to exercise was not significantly different between H and N. This study suggested that young H have an identifiable hemodynamic profile.

**3** NEPHROTIC SYNDROME IN THE SECOND DECADE OF LIFE. Ingelfinger, Julie R., Dept of Peds, Children's Hosp Med Ctr, Boston. (Spons. by Grupe, Warren E.)

Of 224 patients presenting with the nephrotic syndrome, 22 (13 females, 9 males) had onset of their disease in the second decade of life. All but 4 had renal biopsies. Lipoid nephrosis and its variants (nil, focal segmental or focal global glomerulosclerosis and mesangial proliferative) accounted for the majority of patients (13); all nil change (7) and one of 4 with mesangial proliferation were completely steroid responsive. However, 41% of patients had nephrotic syndrome due to other forms of glomerulonephritis. One patient with a nephrotic syndrome associated with post-streptococcal glomerulonephritis resolved spontaneously. All others (7) retained proteinuria after steroid therapy, although 5 have lost edema. The 3 patients with membranoproliferative glomerulonephritis have developed renal insufficiency in spite of steroid therapy; proteinuria decreased or disappeared in the 4 patients with lupus, although their systemic disease remains active. The one patient with membranous glomerulonephropathy and the one with focal glomerulosclerosis were steroid resistant.

Of 5 patients with hematuria, only 1 responded completely to steroids. Hypertension was present at onset in 9; 6 achieved full remission. Presenting symptoms and laboratory data failed to separate nil change from patients with more severe disease. Since clinical parameters are not as predictive of response to steroids as renal pathology, biopsy is more important to determine therapy in the second decade than in younger children.

## 4 AN EVALUATION OF A GENETIC SCREENING PROGRAM FOR THALASSEMIA TRAIT IN A GREEK ADOLESCENT POPULATION.

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Fear of psychological damage has curtailed mass genetic screening, and adolescents have often been excluded for presumed greater susceptibility to its negative impact. Mass education and genetic screening for  $\beta$ -thal trait were conducted among Americans of Greek descent from 1972-75. The 14 adolescents found to have  $\beta$ -thal trait and matched controls were interviewed to determine objective knowledge and subjective interpretation of the seriousness of  $\beta$ -thal trait, their responses to learning that they were carriers of a lethal gene, and their reproductive attitudes and plans. 80% had a good or fair recall of objective information. Traits knew more about the trait, and considered it less serious than controls. Although 8 traits recalled having been upset on learning they were carriers, none remained upset very long. All appeared to find constructive ways of using the information. While not believing that their choice of mate would be affected, when asked about having children should they marry a person with the trait, 36% of traits said they would adopt, and 29% said they would have no children rather than risk having an affected child. In contrast to the prevailing notion, adolescents, who are less threatened by immediate childbearing responsibilities than adults, may be less traumatized than adults by specific genetic information. They appear to benefit from having time to assimilate and integrate this information before facing decisions on child-bearing.

**5** EFFECT OF ETHANOL (ETOH) DURING PUBERTAL GROWTH SPURT (PGS) ON GROWTH OF RATS. David M. Namerow, Lois M. Roeder, S. Michael Plaut, Felix P. Heald, Univ. of Maryland Sch. Med., Depts. of Ped. and Psych., Baltimore.

Effects of ETOH during PGS (30-60d) and young adulthood (60-90d), on later growth and preference for ETOH were determined in 25 male BLU:(LE) rats fed nutritionally adequate, isocaloric liquid diets either with ETOH (E) or without ETOH (C). Groups 1 and 3 were fed (E) from 30-60 and 60-90d, respectively, and (C) thereafter. Groups 2 and 4, fed (C), were pair-fed to 1 and 3 respectively. Group 5 received (C) ad lib. From 120-127d, groups 1, 2 and 5 were offered both (E) and (C). Body weight (BW), naso-anal (NA) and tail (T) lengths were measured twice monthly. Organ weights (OW) were obtained at sacrifice, 142d. As seen below, at 60d, groups 1 and 2 had measurements ( $\bar{x}$ ±SEM) significantly lower than group 5, but not different from one another, indicating the effect was due to reduced food intake rather than ETOH. These differences were no longer seen at 142d. BW was not affected by

Group	BW (gm)	NA (cm)	T (cm)
1 (E)	187.8 ± 10.2*	18.5 ± 0.2*	14.5 ± 0.4*
2 (C), pair-fed to 1	184.6 ± 10.8*	19.1 ± 0.4*	15.5 ± 0.5†
3 (E)	321.1 ± 9.4	21.1 ± 0.3	17.7 ± 0.5
4 (C), pair-fed to 3	309.5 ± 13.9	21.6 ± 0.4	17.5 ± 0.5
5 (C)	338.1 ± 18.7	21.6 ± 0.3	17.7 ± 0.5

Groups 1 or 2 vs. 5: †p<.05; \*p<.01 either ETOH or reduced food intake during young adulthood. No differences were found for feed efficiency, OW/BW, or preference for ETOH. Thus, effects of ETOH during PGS on later growth were transient and due to food deprivation.

**6** SELF PERCEPTION IN OBESE ADOLESCENTS AS MEASURED BY HUMAN FIGURE DRAWINGS. I. Ronald Shenker, Marsha Sonnenblick, Vincent Fischell, Spon. by Philip Lanzkowsky, Sch. of Med., Health Sciences Ctr. State Univ. of N. Y. at Stony Brook, Long Island Jewish-Hillside Med. Ctr., Dept. of Ped., New Hyde Park, N.Y.

There are a variety of physical, emotional and adjustment problems associated with obesity. This study was designed to explore the relationship between self perception and body image. The "Draw A Person Test" in which the human figure drawing is interpreted as a projection of the subjects self image was administered to 160 adolescents, half obese (more than 25 lbs. overweight by Standard Tables), and half normal in weight. Both groups were matched for sex and age. Patients with serious medical or psychiatric problems were excluded.

The physical dimensions of the drawings were obtained by measuring height and width and obtaining a height-width ratio, which we have designated an obesity index. This serves as a relative measure of obesity in the drawing. The data was subjected to a three-factor analysis of variance for a) weight, b) sex and c) age.

Statistically significant differences were found for weight and sex, but not for age. The weight by sex interaction approached statistical significance, but none of the remaining interactions were significant. The findings indicate that the obese male projects his obesity into his drawing whereas the obese female does so only minimally. We postulate both conscious and unconscious mechanisms contribute to this finding.