

7 SERUM GAMMA GLUTAMYL TRANSPEPTIDASE (GGTP) ACTIVITY: A CHEMICAL DETERMINANT OF ALCOHOL USE IN ADOLESCENTS. M. Westwood, M.I. Cohen, H. McNamara, Albert Einstein Coll. Med., Montefiore Hosp. & Med. Ctr., Dept. Ped., The Bronx, NY.

With the recent increase in significant alcohol consumption among adolescents and adults, attempts have been made to identify a biochemical marker of such excessive alcohol use. Studies in adults have demonstrated serum GGTP activities, presumably of hepatic origin, to be elevated in direct relation to alcohol intake while other chemical indicators of liver dysfunction were rarely affected. This study was undertaken to determine the relationship between serum GGTP activity and alcohol consumption during adolescence. Fifty-five patients, ages 12 to 22 years, including 9 females and 46 males, comprised the study population. Alcohol consumption was categorized as teetotaler, social drinker, mild drinker (1-2/d), moderate drinker (3-5/d) or heavy drinker (6 or more/d). Serum GGTP, transaminase and alkaline phosphatase activities were determined. The 40 adolescents, who had a history of alcohol consumption ranging from teetotaler to 5 drinks/d, had normal serum GGTP activities (< 25 mU/ml). Among the 15 patients who consumed 6 or more drinks/d, 12 demonstrated elevated GGTP activity. Evidence of hepatic disease in these heavy drinkers was negligible, suggesting the abnormal GGTP concentrations may not be secondary to liver disease. It would appear from these data that elevated serum GGTP levels in the presence of other normal liver tests may be a valuable marker of significant alcohol consumption and warrant inclusion among the laboratory screening procedures performed in teenage patients suspected of heavy alcohol consumption.

8 EFFECTS OF CYCLIC ESTROGENS ON PREPUBERTAL & PUBERTAL GIRLS WITH EXCESSIVE HEIGHT. M. James Whitelaw & William H. Graham, Departments of Endocrinology & Radiology, O'Connor Hospital, San Jose, California. (Spon. by Philip Sunshine, Department of Pediatrics, Stanford University Medical Center, Stanford, California.)

For excessive height, 25 girls ages 8-10; 34, 10-12; and 34 over 12 were given 10 mg of estradiol valerate days 5, 9 and 16 of cycles; 250 mg 17 hydroprogesterone caproate was added on day 16. Therapy was one year or more in 91. Average yearly height increase in the groups was 10.73, 7.33, 3.67 cms; greatest was 13.3 cms. Average weight gain 8.18, 8.28, 4.98 kilograms; greatest was 16.8 kg. Average yearly bone age advance 36.7, 32.97, 27.41 months; greatest was 64 months in an 8-year-old. In the youngest group, axillary and pubic hair did not appear until 4-6 months after therapy. Side effects were gluteal striae, mild areolar pigmentation, and amenorrhea up to 13 months, in 18, following cessation of therapy; all have since menstruated normally. None have had infertility problems. Estradiol valerate is a strong genital and extragenital anabolic agent which is most efficacious in preventing excessive height in girls when started between ages 8-11, and becomes progressively less effective as the bone age approaches 14. The adrenarche does not appear to be initiated by an iatrogenic menarche.

9 MEDICAL MANAGEMENT OF CROHN'S DISEASE IN ADOLESCENCE. Whittington, Peter F., Barnes, H. Verdain, Bayless, Theodore M., (Sponsored by Odell, Gerard B.), Johns Hopkins University School of Medicine, The Johns Hopkins Hospital, Departments of Medicine and Pediatrics, Baltimore.

Untreated Crohn's disease in adolescence is a debilitating, progressive disease that often manifests itself in failure of growth and development. We have attempted to modify this course by continuous medical suppression of disease activity. Sixteen consecutive adolescent patients were treated for a mean duration of 3.5 years. Fourteen received long term prednisone therapy for maintenance of disease suppression. All 16 have been asymptomatic or have had only mild symptoms which did not interfere with regular activities. Only one subject was re-hospitalized. He underwent colectomy. Alternate day prednisone therapy has been attained in 11 patients; ten are growing and developing at a normal rate. In total, 13 of 16 have achieved pubertal development appropriate for age. The eight patients with distal ileal disease have had a consistently excellent response to therapy. There have been no major adverse effects from drug therapy. It is concluded that an effort to continuously suppress disease activity in adolescents with Crohn's disease is warranted. The use of alternate day prednisone therapy will allow for both control of disease activity and normal adolescent growth. The best results can be expected in those patients with primarily ileal disease.

10 ANOREXIA NERVOSA SYNDROME IN A CHILDREN'S HOSPITAL Lonnie K. Zeltzer and L. Marilyn Mehr (Spon. by M. Kogut), U.S.C. School of Medicine, Childrens Hospital of Los Angeles, Department of Pediatrics, Los Angeles

A review of patients with Anorexia Nervosa was undertaken to ascertain any previously unrecorded characteristics of adolescents with this illness in order to develop more effective intervention modalities. Chart analyses of 39 patients (32 female and 7 male) hospitalized from 1958 to 1976 indicated that 64% were treated after 1968, and males were symptomatic 12.4 months and females 7.8 months prior to admission. At time of admission, average patient age was 13.5 years. The patients had older parents (mid 40's) and non-working mothers with few outside interests (80%). 79% had intact families, but 90% of these reported marital discord. Patients were described as isolated from peers (87%), stressed (82%), lonely (79%), and having distorted body images (59%). They had food fetishes (74%) and were involved in repetitive exercising (77%). 64% felt nothing was wrong with them. Characteristic symptoms were anorexia (92%), 2^o amenorrhea (84% of females), constipation (56%), and abdominal pain (54%). 70% had lost more than 20% of their body weight. 92% had normal heights, while weights were greater than 2SD below mean on admission in 77% and remained such on discharge in 72%. A new finding was delayed testicular development in 4 males. 77% had one hospital admission, 79% were hospitalized for less than a month, and a variety of intervention modalities was utilized. With integration of the isolated literature findings and this study, the hospitalization profile in a medical facility is that of one admission, short stay, and no weight change at discharge, while the patient profile is characterized by many factors besides weight loss.

11 ADOLESCENT SUICIDE ATTEMPTERS AT A CHILDREN'S HOSPITAL, Lonnie K. Zeltzer, L. Marilyn Mehr, and Fiona Leigh (Spon. by M. Kogut), U.S.C. School of Medicine, Childrens Hospital of Los Angeles, Departments of Pediatrics and Psychiatry, Los Angeles

To examine the profile and hospital course of adolescent suicide attempters at a medical facility, 81 records were reviewed of suicide attempters hospitalized between 1966 and 1976. 68% of admissions occurred after 1972, paralleling national trends. 61% of patients were age 15 years or younger, and 79% of the total were females. There was a disproportionate number of Blacks (31%) and Latins (21%) than in the general hospital population (18% Blacks and 8% Latins). For 42%, the attempt was their first. Pre-attempt symptoms were depression in 54% and acting-out behavior in 35%, with prior drug abuse in only 15%. History of physical illness was present in 48%. Loss of a parent through death, divorce, or separation occurred in 47%, while 46% of those with intact homes reported conflict within the family. There was a recent move in 21%. Ingestion was the method used by 94%, although other disguised attempts may not have been recorded. In the hospital, 60% of patients had psychosocial consultations, with 60% occurring later than 24 hours after admission. 65% of consults saw the patient only once, with family included in 51%. At discharge, 22% of patients had no referrals and, of those who did, 33% carried out the referral. Thus, it appears that adolescent suicide attempts are on the increase, and occur and recur largely in younger adolescents. Also, these patients are offered less than optimal psychosocial intervention in a medical facility and follow through with referrals poorly.

12 INFANT REARING ATTITUDES OF ADOLESCENT MOTHERS. Zuckerman, Barry S., Winsmore, G.K., Alpert, Joel J. Boston University School of Medicine, Boston City Hospital, Dept. of Pediatrics, Boston, Massachusetts.

Teenage (<18 yrs.) pregnancy is an important clinical event accounting for 20% of deliveries at Boston City Hospital. The demands of both adolescence and motherhood may result in special infant rearing attitudes and concerns for the adolescent mother. A prospective study was accomplished comparing primiparous adolescent mothers (N=23), primiparous nonadolescent (>21 yrs.) mothers (N=8), and multiparous nonadolescent (>21 yrs.) mothers (N=24). Mothers were consecutively selected over a four month period if they met specified criterion. A structured interview was conducted in the mothers' homes at two weeks and three months postpartum. Few adolescent mothers were married (9%). Of the unmarried mothers, most (81%) felt that the baby's father was involved in the child's care. Compared to the other two groups, adolescent mothers had different attitudes about discipline (p<.05), breast feeding (p<.05), and feeding in general (p<.05). They expressed greater insecurity (p<.01) about their role as mother and were less likely to use health professionals for advice (p<.025). Similarities to the other groups were also seen. Adolescent mothers and their infants provide physicians with a special pediatric family. The pediatrician can better facilitate the adjustment of the adolescent mother and her infant by recognizing and addressing her unique attitudes and concerns. Prevention and intervention around illness could also be facilitated.