drome, little is known of its incidence in all cases of sudden unexpected deaths in children. In an effort to determine the incidence of interstitial myocarditis in all sudden unexpected pediatric deaths, a one-year retrospective study was done of all deaths in the 0–16 year age group examined by a large county medical examiner's office. Of 116 children, 43 were judged to have died a sudden and unexpected death. Myocardial tissue was available for histologic review in 37 of the 43 children with myocarditis evident in eight (22%). Myocarditis was present in four of the 33 children who died before the age of one year and in all four of the children in the one to 16-year age group. Myocardial tissue was also available for review in 12 of 39 additional children who died immediately as the result of an accident, suicide, or homicide. None had evidence of interstitial myocarditis. All 12 children studied were in the two to 16-year age group. It is postulated that histologic evidence of interstitial myocarditis is much more frequent than previously anticipated in sudden unexpected death and the terminal episode may be the result of a cardiac arrhythmia. This study also suggests the importance of well-designed prospective studies which include a control group of sudden explained deaths matched for age and date of death to be carried out in order to determine the prevalence of myocarditis in the general pediatric population.

COMMENT: Dr. Feldt suggested that these studies were hampered by the fact that the whole heart was not available for study and, thus, myocardial biopsies were studied. Dr. Staley indicated that this assumption was correct and also stated that prospective studies were planned in which they will be able to study the entire heart including the conduction system and obtain viral studies as well. In response to another question, Dr. Staley stated that there was no seasonal variation in the case material.

19. Radiologic and clinical signs of gastrointestinal stasis induced by bovine milk ingestion in allergic patients


Seven allergic pediatric patients with bovine milk or milk protein inducible anorexia, vomiting, abdominal distention, hypoperistalsis with periods of absent bowel sounds, and, often, obstipation showed radiologic signs of prolonged pooling of contrast medium in the stomach, ileum, and/or colon hours following oral challenge with bovine milk or milk protein solution. Control studies in the same patients using the same techniques but without prior milk challenge revealed neither clinical signs of gastrointestinal stasis nor radiologic evidence of segmental retention of contrast medium. In carefully controlled paired studies, these roentgen signs of specific food inducible segmental stasis seem to illustrate anatomically the functional disorder underlying certain clinical expressions of food intolerance in allergic patients and may well contribute to their diagnosis and therapy.

COMMENT: Dr. Kenny asked if there were any data on the absorption of food by allergic patients. Dr. Liu stated that the pooling and stasis noted was in areas of the bowel not critically needed for absorption and that passage through that portion of the bowel important for absorption was actually increased, thus suggesting an impairment of absorption in the allergic patients. Dr. Liu also indicated that control subjects were fed the same substance as the study group of patients.

20. Enhanced linear growth rate in oxandrolone-treated achondroplasia

Daniel C. Postellon* and Frederic M. Kenny, Pittsburgh, Pa.

Six patients with classical achondroplasia, 3 months to 10 2/12 years of age, were treated with oxandrolone 0.2 mg/kg of body weight/day for periods of 12-19 mo. Height was measured every 2-6 mo and bone ages at yearly intervals. In 5 of 6 patients therapy began after age 2.5 yr. Each showed the same pattern, with a markedly increased growth rate during the initial 3-6 mo on oxandrolone. A 2.5-yr-old child grew 4 cm and a 5-year-old 2.7 cm during the initial 3 mo. This was followed by a slowing of the growth rate, and then a second acceleration, although all posttreatment growth rates were greater than pretreatment. The overall growth rates were 8.4, 6.1, 4.6, 6.6, and 6.6 cm/yr during therapy. The 3-month-old child grew approximately 10 cm/yr during treatment for 19 mo. No prepubertal patient discontinued medication because of virilizing side effects, which were mild. Bone ages at completion of therapy were equal to or less than expected for chronologic age. Stanescu et al (Acta Endocrinol 64:577, 1970) have shown improved cartilage histopathology in a patient with achondroplasia during norandrosterone phenyl propionate therapy, with a more organized structural appearance and appearance of columns and islets and loss of fibrosis in tibial growth plate cartilage.

We conclude that oxandrolone is beneficial in augmenting the growth rate in achondroplasia. Since we detected no adverse bone age vs height age increments, we consider long-term administration of oxandrolone to be justified in an attempt to increase the height in this condition.

COMMENT: In this study the assessment of growth rate was made by comparison of each patient's pretreatment rate vs the rate while receiving oxandrolone. In response to a question, the authors noted that they were unable to compare growth rates in their six patients to an untreated population with achondroplasia. They had attempted to obtain such population data from Drs. Victor McKusick and David Smith but it is not in existence. The suggestion was made that an inquiry be made to the Little People of America to poll their membership in an effort to construct a table of untreated patients.

21. Serum parathyroid hormone and 25-hydroxyvitamin D in the differential diagnosis of rickets

S. B. Arnaud, G. B. Stickler, and J. C. Haworth, Rochester, Minn., and Winnipeg, Canada

We measured serum 25-hydroxyvitamin D (25-OH-D), serum immunoreactive parathyroid hormone (iPTH), and blood mineral concentrations in normal children (N) 6 mo to 5