

## 229 CHRONIC RENAL INSUFFICIENCY IN CHILDREN IN CZECHOSLOVAKIA

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An enquiry campaign was used to determine the frequency of chronic renal insufficiency in children aged 0-15 years in the territory of Czechoslovakia. The prevalence (total frequency) was 3,6/mill. inhabitants, the incidence (annual increase) was 1,6/mill. inhabitants. Hereditary and congenital affections were the cause of renal insufficiency in 75,9% of cases, acquired affections in 24,1% of cases. Of the latter, the most frequent cause was chronic glomerulonephritis, which participated in the total number of causes with 16,7%. The highest number of children was in the group 11-15 years old (57,4%). The authors compare obtained data to the data in literature; they present a project with the aim to ensure radical therapy of children with chronic renal failure by using existing dialysis centers for adults including 2-3 centra intended merely for children; of the latter, 1-2 must be built up. They also propose the establishment of a central register for all children with chronic renal insufficiency living in Czechoslovakia.

## 230 A DECISION-MAKING MODEL FOR TREATMENT CHOICE OF ESRD IN CHILDREN. Hurley, R.M., Richardson, M.C., Regional Nephrology Program, Hamilton, Ontario, Canada.

Decisions concerning the modality of choice for children with ESRD are not made in a random fashion. Intuition, technical expertise, past experiences and enthusiasm for new modalities color one's perception of the optimal treatment choice. We propose a framework where treatment alternatives are examined systematically. A feasibility equation for the treatment of choice has been developed which scores 4 variables: quality of life, medical factors, transplantability and management issues. Scores are then tabulated for treatment choice. The model was used to examine 19 children ages 6 wks.-16 yrs. over 10 yrs. Five pts. whom the authors had no input in decision-making were examined retrospectively, 11 were scored retrospectively where the authors decided the modality and 3 pts. were studied prospectively. Twenty four decisions were audited. Early pts. had only 3 possible dialysis alternatives, centre peritoneal, centre hemo. and home hemo., whereas the more recent pts. had the additional choices of home peritoneal cyclor, continuous ambulatory peritoneal and self-care hemo. We believe that this model can be helpful at different points in time. Initially it encourages a review of all possible treatment choice. Later it may be used as an ongoing assessment tool pointing to other alternatives as more information is gathered and thus minimize the need for decision-making at the time of a crisis. Finally, it serves as a tool to choose other modes of dialysis after the treatment of choice fails.

## 231 SOCIOLOGICAL ASPECTS OF CONFLICTS IN A DIALYSIS CENTER BETWEEN THE PHYSICIANS AND THE PARENTS OF CHILDREN IN THE TERMINAL RENAL FAILURE STAGE OF CHRONIC KIDNEY DISEASE.

Two main problems arise when allotting roles to parents and to physicians. On one hand the diet that the sick child should strictly follow in order to survive, which is differently interpreted by the parents according to their cultural, religious and social background and whether they come from the town or from the country. On the other the child's attendance at school, which is highly recommended by the research physician who is concerned with the socialization of the patient-subject.

I spent two years (1977-79) at "Les Enfants-Malades", a children's hospital in Paris, in a dialysis center where the patients are dialyzed several times a week. The methods I used consisted in participant observation, interviewing doctors, nurses in the unit. I also attended once a week for six months the consultations dealing with the children who had received transplants.

The problematics regarding this illness are linked to a broader issue: the socialization of non reducible handicaps.

## 232 INTEGRATION OF CHILDREN AND ADOLESCENTS AT DIFFERENT STAGES OF CHRONIC RENAL FAILURE (CRF) IN A HOLIDAY CAMP.

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In the past holiday activities for children with CRF have mainly been confined to patients on regular hemodialysis (HD). It appears rational to include children at all stages of CRF, since the different forms of treatment are interchangeable. A 4 - week summer holiday camp was organized in a resort institution for a combined group of CRF patients, age 8 - 18 years, on HD (n = 7), after transplantation (TP, n = 7) and on conservative treatment (CT, n = 12). Impressive differences in behaviour were noticed between the 3 groups, but a mutual adaptation took place during the stay. TP patients became the natural leaders and acted as 'experts' for HD problems, thereby assisting HD patients and overcoming better their own anxious feelings about possible re-dialysis. HD patients tried successfully to abandon their overprotected life style, and CT patients started to accept ideas on later HD. The exchange between the 3 groups, sustained by the medical and psychosocial team, contributed to emotional stabilisation and maturation. In our experience holiday camps for mixed groups of CRF children and adolescents are more beneficial than activities restricted to a single group.

## 233 EFFECT OF 1 $\alpha$ -HYDROXYCHOLECALCIFEROL (1 $\alpha$ -OH-D<sub>3</sub>) ON THE ANEMIA OF CHRONIC RENAL FAILURE

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The pathogenesis of the anemia of chronic renal failure is multifactorial. Anabolic steroid has been reported to be of therapeutic value, but it is difficult to use because of its side effect especially in children. We used an analog of activated vitamin D (1 $\alpha$ -OH-D<sub>3</sub>) in 6 haemodialysis patients with anemia. After 1 $\alpha$ -OH-D<sub>3</sub> treatment, hemoglobin and hematocrit values didn't change in these patients, but frequency of blood transfusion has been decreased.

We examined serum erythropoietin by in vitro bioassay and haemoagglutination inhibition assay. And we also examined the effect of various vitamin D metabolites on in vitro growth of granulopoietic and erythropoietic colonies.

1 $\alpha$ -OH-D<sub>3</sub> is suspected to have anabolic steroid like effect.

## 234 FINAL HEIGHT OF CHILDREN WITH CHRONIC RENAL FAILURE (CRF)

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It is well known that CRF retards body growth and skeletal maturation. However, neither the relationship between growth retardation and attainment of adult height has been ascertained nor it is known at what age children with CRF cease to grow. The present study is based upon evaluation of 34 children followed 3-9 yrs after onset on CRF up to the time of epiphyseal union of the hand and wrist bones and minimal (<1 cm/yr) or no growth since at least 1 year. 23 pts had congenital (A) and 11 acquired (B) nephropathies. Final height was attained at the average age of 18.3 yrs in males and 16.9 yrs in females. Mean final height was well below the 50th centile in both groups with no statistical difference between males and females. 7 pts (30%) in group A but only 1 in group B reached a final height < 3rd centile. There was no difference among the two groups regarding medical treatment, dietary intake and duration of dialysis, but age at first symptoms and age at onset of CRF differed significantly. It is suggested that primary renal disease and duration of CRF are major factors causing reduction of adult height in children with CRF.