87

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Movable kidney, a neglected disease in Children.

Movable kidney is a pathologic condition, that is very poorly studied in children. During the last 12 years we have noticed more than 35 cases. Each case was analysed in respect of:1.sex and age 2.previous history of disease, 3.presenting symptoms and signs and 4.renal functional tests.
In 2/3 of the patients the sex was female and the age was over 7 years. The right side was prevalently affected. The most frequent symptoms and signs were: temperature, dysuria, cloudy and or haematuric urine, abdominal pain, asthenia, failure to thrive, nausea and incontinence. In 2/3 children urinary tract infection was established, and vesicoureteral reflux was found in 1/3 of the total number of children. In some cases functional renal tests were deeply depressed. According to this study the authors believe that movable kidney in children is certainly a serious pathologic condition and that more attention should be paid to this disorder.

88

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Kinetics of Lead transport across the erythrocyte membrane.

This study was designed to determine the rate of ingress and egress of erythrocyte lead. Heparinised human whole blood was mixed with solutions of lead chloride (50ug/100ml)labelled with Pb-203.Reentry of lead to the cell was blocked with $CaNa_2EDTA$ 10^{-4} at measured intervals and the partition between cells and plasma determined by counting at the photopeak (0.279 MeV). Uptake from plasma approaches equilibrium after 15m but egress is prolonged with $T_{\frac{1}{2}}$ of 120m.Distribution is governed by two variables - duration of contact with lead and duration of elution with the chelating agent. Extrapolation to zero time (T_0) revealed a discrepancy of 5% between observed and theoretical lead content of the cells.Cooling the system to $4^{o}C$ increased the observed discrepancy and inhibited release of lead already bound.The data are consistent with the existance of two cellular binding sites differing in their accessibility to chelating agents,in their affinity for lead,and in the temperature dependence of the rate constants of the associated equilibria.A hypothetical 2-compartment model is presented.

89

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Materno-fetal transfer of IgG in multiple pregnancy.

The concentration of the immunoglobin IgG was measured by radial immunodiffusion in paired umbilical cord and maternal sera in 30 unselected twin pregnancies. Total serum proteins, albumin, alpha-feto protein, transferrin, immunoglobins IgM IgA and IgE levels were also determined. In the majority of cases IgG concentration related more closely to that of the other twin than to birth weight and in some cases the IgG was greater in the twin of lower weight. As in singletons, mean IgG levels were higher in cord than maternal sera. The 3 cases of feto-fetal transfusion syndrome were exceptional in the large difference between IgG concentrations in recipient and donor twins, the IgG level in the donor being only 13%-51% of that in the recipient. The discrepancy was much greater than that found between the fetal produced proteins, which suggests that there may be a disturbance in materno-fetal placental transfer in this condition.

90

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Mutability in Down's syndrome.

Certain conditions,such as Down's syndrome/DS/and Fanconi anaemia are associated with a higher frequency of malignancies.The number of children with DS suffering from leukaemia was investigated in Hungary.0,76% of the leukaemic children were affected by DS,while only 0,07% in the general population.The present work aimed at demonstrating whether an increased in vitro mutability can be induced by chemicals in DS.Various concentrations of two alkylating drugs/Zitostop and Licurim/were used as mutagen.1500 mitosis in the lymphocyte cultures of 5 children with DS were analysed after the in vitro addition of Zitostop, and a further 930 cells from other 5 DS patients were examined under the effect of Licurim.Using a given dose of either drug,a higher rate of induced chromosome mutations could be detected,as compared to controls.An increased rate of mutability can therefore be responsible for the higher incidence of malignancies in at least some of the syndromes predisposing to leukaemia and malignant tumours.