91 T. VESIKARI, M. JANAS and R. ANTTILA (Intr. by J.K. Visakorpi). Department of Paediatrics, The Central Hospital of Tampere, Finland. Viral infections associated with acute urinary tract infections in children.

In acute urinary tract infections of children we previously found that 1. lymphocyte responsiveness to T-cell mitogens is suppressed at the acute stage of infection, 2. the suppression is more pronounced in pyelonephritis than in lower urinary tract infections (LUTI), and 3. upon recovery there usually is a return to normal responsiveness. The suppression of cell-mediated immunity could result from a preceding viral infection. In a material consisting of 53 cases of pyelonephritis and 39 LUTI studiad by sequential serum specimens a concomitant virus infection was diagnosed in 7 cases (7,6%). The following viruses were detected: parainfluenza type 3 (3 cases), rotavirus (2), respiratory syncytial virus (2). It is concluded that viral infections in most cases are not responsible for the decreased lymphocyte responsiveness in pyelonephritis and LUTI, but the immunosuppression is associated with the bacterial infection per se. On the other hand, in some cases certain viruses may have a role in the pathogenesis of urinary tract infection.

92 E. PUHAKKA[+], E. VIROLAINEN[+], E. AANTAA[+], P. TUOHIMAA[+], J. ESKOLA[+], and O. RUUSKANEN[+]. Departments of Pediatrics and Otorhinolaryngology, University of Turku, 20520 TURKU 52, Finland. Myringotomy in the treatment of acute otitis media in children.

The treatment of acute otitis media was studied in 158 children. All children (mean age 4 years) received penicillin orally 80.000 - 100.000 IU per day for ten days. Myringotomy was performed to 68 children at the time of the diagnosis. The other 90 children were treated with penicillin and ear drops. The bacteriological findings of the nasopharynx at the time of diagnosis were equal in both groups. After two weeks 42 % of the children without myringotomy and 71 % of the children with myringotomy were cured. The children who were not cured were treated with amoxicillin for ten days. Four weeks after the start of the treatment 71 % and 90 % of the children were cured respectively. The differences between the two groups are significant. The observations indicate that myringotomy clearly accelerates the recovery of acute otitis media.

93 R.LUDINOVÁ, V.JOUJA, N.VINŠOVÁ, J.VOCEL and M.MELKOVÁ Institute for Care of Mother and Child, Prague, Czechoslovakia. The course of endemic diarrhoea in full-term and pre-term infants caused by pathogenic E.coli strains. Prevention and treatment by colonization with a non-pathogenic E.coli 083 strain.

1/ The presence of enteral pathogens was proved at a department for newborn infants during 7 months. The following 3 months all infants were colonized by oral administration of a 10^8 suspension of E.coli 083. Before colonization the occurrence of enteropathogenic strains was found in 68% of infants. During 3 months' colonization the percentage of infants with pathogens gradually decreased to 65%, 52% and 40%. After this period pathogens were found again in 69% and 64% of infants. 2/ In an endemic, caused by E.coli 0111 at a department for pre-term infants, 23 infants and 21 newly admitted ones were colonized with the E.coli 083 strain. Within two weeks the pathogenic strain dissapeared and none of the newly admitted infants got sick. 3/ In a group of 11 carriers of enteropathogenic strains in 9 infants the pathogens dissapeared after the colonization.
The oral colonization with a non-enteropathogenic E.coli 083 strain seems to prevent the invasion of pathogens in the intestine and to depress the present ones.

94 Matsuda, I., Nagai,B., Kondo,T., Taniguchi, N., Arashima,S., Mitsuyama,T., Oka,Y., Homma,M. (Intro. by F.A. Hommes), Dept.Ped., Kumamoto Univ., Depts. Ped. Med. and Environment Med., Hokkaido Univ. Metabolic acidosis in patients receiving anticonvulsants.

Blood pH, bicarbonate, PCO_2, serum calcium, alkaline phosphatase, iPTH and red blood cell carbonic anhydrase activity were measured in 37 patients receiving anticonvulsants. Carbonix anhydrase (CA) was measured by immunoadsorbent method described previously (Kondo et al., Clin. Chim. Acta 60, 347, 1975). 10 out of 37 patients showed acidosis (pH <7.30, bicarbonate <19.0 mEq) in whome a high incidence of hypocalcemia, hyperactivity of alkaline phosphatase and a significantly reduced CA-B dependent activity and CA-B specific activity ($P < 0.01$) were found. High iPTH levels were found in 13 patients, but this was not correlated with the acid-base balance status. The mainly used anticonvulsant was phenytoin. Drugs seemed to have a direct effect on CA-B activity. Metabolic acidosis might be one of the factors in causing a disturbance of calcium metabolism in these patients.

95 R.A.K. JONES (Intr. by V. Dubowitz), Department of Paediatrics and Jerry Lewis Muscle Research Centre, Hammersmith Hospital, LONDON, W.12. Congenital muscular dystrophy: benefits of early diagnosis and active rehabilitation.

22 cases of congenital muscular dystrophy were reviewed, aged 2 to 18 years. 7 had orthopaedic problems at birth (5 dislocated hips, 1 talipes and 1 arthrogryposis); 2 presented later with scoliosis; 13 had weakness alone. Power improved with age in 12, was static in 8 and worsened in 1. The other case is only 2 months old. 10 children acquired lower limb contractures severe enough to interfere with walking. Only 1 had had regular physiotherapy and late diagnosis was common (mean age 3.3 years). 4 had been immobilized during treatment of congenital dislocated hips. 3 of the 10 have had successful surgical releases; a fourth awaits surgery. Of 6 whose contractures were too severe for surgery, 5 probably would have had sufficient power for ambulation in calipers. 6 children with milder weakness, all walking independently before 2 years, have not had physiotherapy and remain free of contractures. 5 children with severe weakness diagnosed early (mean age 1.2 years) have had regular passive stretching. 1 of these has irreducible dislocated hips but no progression of her contractures; 1 has no contractures and 3 have 5-10° hip flexion. The eldest walked independently at age 6, despite severe weakness at birth. The other 4 are not yet walking (at age 18 months to 3 years 10 months) but 3 are getting stronger. Our findings demonstrate the non-progressive nature of the disease and the value of physiotherapy in preventing contractures, especially if ambulation is delayed by congenital hip dislocation or severe weakness.

96 K.G.ROSEN[+],K-H.HÖKEGÅRD[+],K.KARLSSON[+] and H.LILJA[+] (Intr by:I.Kjellmer),Dept of Pediatrics and Dept of Obst-Gynec,Univ.of Göteborg,Göteborg,Sweden. Neonatal electrocardiographic changes in relation to cardiotochographic changes.

Previous experimental studies on the acutely exteriorized fetal lamb have demonstrated the occurrance of changes in the S-T interval of the fetal ECG during early phase of hypoxia,in parallell with changes in the somatosensory-evoked EEG and without signs of failing cardiovascular function.There are a number of findings indicating the anaerobic utilization of myocardial glycogen to be the metabolic background to the fetal ECG changes.The present study was undertaken in order to see if the same pattern of changes exists immediately postpartum and if the degree of change reflect the birth trauma as judged from the cardiotochographic (CTG) recording and Apgar score.28 children with normal CTG and 29 with CTG changes were examined with a precordial ECG recorded within 2 min after birth.High and peaked T waves (high T/QRS-ratios) were significantly more common in the group with CTG changes.The children with ECG changes also had significantly lower Apgar scores and more neonatal complications.

The immediate postpartum ECG seems to give good information of the accumulated hypoxic stress to which the child has been submitted during delivery.