

2. They seek to specify the casual role of lymphocyte cultures and mitoses preparation conditions in the apparition of chromosomal breaks. For this purpose peripheral blood of a patient suffering from Fanconi's anemia and peripheral blood from a normal subject of opposite sex are cultivated in the same tube.

Upon metaphasic plates coming from these mixed cultures, the gonosomic equipment marks respective mitoses from both subjects; only patients' mitoses have a chromosomal abnormalities high rate. For example: Patients: 14 abnormal mitoses out of 19
Control: 1 abnormal mitoses out of 18

3. Report and argue of the results of chromosomal examinations practised in:

4 cases of idiopathic bone-marrow aplasia

4 cases of Blackfan Diamond's anemia

1 case of amegacaryocytic thrombopenia.

4. Expound first results of a cytogenetic study practised on blood in 43 children suffering from chronic nephropathy and subjected to an immuno-depressive treatment by nitrogen mustard, azathioprine and chlorambucil.

27 *Clinical Significance of Precipitating E. coli Antibodies in Urinary Tract Infections.* U. JODAL*, J. HOLMGREN*, L.A. HANSON and J. WINBERG, Department of Paediatrics and Institute of Medical Microbiology, Department of Bacteriology, University of Göteborg, Sweden.

It is well known that attacks of pyelonephritis are followed by production of antibodies demonstrable by the passive haemagglutination technique using O-antigen from the infecting *E. coli* strain. This method, however, reflects mainly the amount of IgM-antibodies present, but IgG-antibodies are produced as well as shown by earlier studies. The latter type of antibody is better demonstrated using precipitation techniques such as immunodiffusion methods.

This study was initiated to test our preliminary findings that IgG antibodies are mainly formed during recurrent but not during the first attack of first-time pyelonephritis.

Sera from 25 children with acute pyelonephritis were collected. Ten of these children had definite recurrences, while 15 were suffering from their first urinary tract infection as far as could be ascertained by clinical history and examination. The diagnosis of pyelonephritis was made by clinical signs and symptoms, quantitative bacterial cultures (>100,000 *E. coli* per ml of urine), pyuria and elevated titers of agglutinating *E. coli* antibodies. In addition sera from 4 patients with renal scars ('chronic' pyelonephritis), but without demonstrable actual bacteriuria were investigated.

Each serum sample was analysed with O antigen from the infecting strain (bacterial suspension boiled for 2 hours), as well as from type strain of the eight O groups most prevalent in cases of urinary tract infection (purified lipopolysaccharides).

A double-diffusion method was used in the micro modification of Wadsworth.

In all sera from patients with recurrent urinary tract infections precipitating antibodies against O antigen from their infecting *E. coli* strain could be demonstrated. In the sera from the 4 patients with renal scars, but without actual bacteriuria precipitating antibodies were also found using as antigen the eight different purified O antigens. On the other hand such antibodies could be detected in only three of the 15 sera from children with their first attack of pyelonephritis. One of these three patients had antibodies against three different O groups, indicating that also this patient had a recurrent infection. Precipitating *E. coli* antibodies could not be found in sera from 20 adult blood donors.

Thus precipitating antibodies against the infecting *E. coli* strain seem to be demonstrable in all children with recurrent or 'chronic' pyelonephritis, while such antibodies are rarely found in cases with probable first infections.

The diagnostic possibilities of this method especially for screening of recurrent or 'chronic' pyelonephritis and for prognostic evaluation will be further investigated.

INDEX OF ABSTRACTS

(Numbers following entries refer to abstract number)

Acetoacetate 5
AGATHOPOULOS, A. 11
Albumin 6, 7
Amino acid
- clearance 22
- urea 21
ANDERS, P.W. 10
ASTRUC, M. 16

BACHMANN, P. 22
BELAY, M. 1
Bile acid 23
Bilirubin 6
BODA, D. 1

Calcium 18, 19, 21
- determination 17
- dietary 8
Capillary permeability 7

Ceruloplasmin 24
Cholestasis 23
Cholesterol 15
Chondroitin sulfate 9
Chromosomes 26
COLOMBO, J.P. 22
CONSTANTAS, N. 11
Copper 24
CRASTES DE PAULET, A. 16
CRASTES DE PAULET, P. 16
CSER, A. 2
CSERNAY, L. 1
CURTIS, H.-CH. 10
Cystathionase 14
Cystathionine synthetase 14
Cystinosis 13

Diarrhea 25
Disaccharide 25

DJARDJOURAS, E. M. 15
DONATH, A. 18, 19, 22
D-penicillamine 24
DROESE, W. 8

ECK, E. 1
ELDARN, L. 12
Erythrocyte lipids 15
Exchange transfusion 6

FANCONI, A. 21
Fanconi's anemia 26
Fat, dietary 8
Fatty acids 8
Fetus 4

GATTI, R. 18, 19
GAULL, G.E. 14
Genetics 9, 10, 21, 26
GERMAIN, D. 26

- Glucose 5
– blood 4
- HALVORSEN, S. 12
HANSON, L. A. 27
HEIM, T. 2
Heparitin sulfate 9
Hepatitis, neonatal 23
HERTZ, H. 6
HOLMGREN, J. 27
Homocystinuria 13, 14
Hydrochlorothiazide 18
Hyperglycinemia 12
Hyperlipidemia 16
Hypomagnesemic tetany 19
Hypoxia 1
- Immunoprotein
– IgG-antibody 27
Intestine 25
- JEAN, R. 16
JODAL, U. 27
- Kidney, function 18
KRASILNIKOFF, P. A. 7
KUNZE, D. 8
- LAUNIALA, K. 25
Lipids, erythrocyte 15
a- β -Lipoproteinemia 15
Lipoproteins
– α 15
– β 15
Liver 11
– cirrhosis 24
LLOYD, J. K. 15
LUTZ, P. 13
- MACAGNO, F. 18, 19
Magnesium 19
MARTHALER, TH. 10
MATSANIOTIS, N. 11
Metabolism, amino acid 12
Methionine 14
Methylmalonic acidemia 12
Mucopolysaccharide 9
- Nephrosis 16
Newborn 2, 3, 4, 5, 8
NICOLOPOULOS, D. 11
NORDIO, S. 18, 19
NORMAN, A. 23
Nutrition 8
- Ostcomalacia 20
Osteoporosis 18
O'SULLIVAN, P. M. 24
- Phenylalanine 10
Phenylketonuria 10
Phenylpyruvic acid
– p-hydroxy 11
PHILIPPE, N. 26
Phosphatidyl choline 15
Phospholipid 16
Phosphorus 19, 21
PRADER, A. 21
Protein, plasma 7
Pyelonephritis 27
Pyridoxine 14
Pyuria 27
- RAIVIO, K. O. 4
RAMPINI, S. 10
RASSIN, D. K. 14
REQUIN, CH. 26
- Respiratory distress syndrome 1
Rickets 20, 22
– vitamin D deficiency, pseudo 21
– vitamin D resistant 20
ROSSI, E. 18
ROYER, P. 17
- SARDHARWALLA, I. B. 24
SASS-KORTSAK, A. 24
SCHRÖTER, W. 5
SHACKLADY, M. M. 15
Sphingomyelin 15
Starvation 2
Steatorrhea 23
STEENDIJK, R. 20
STOKKE, O. 12
STOLLEY, H. 8
STRANDVIK, B. 23
STURMAN, J. 14
Succinyl-CoA 12
- Tangier disease 15
Tautomerase 11
TELLER, W. M. 9
Temperature, environmental 2
TERAMO, K. 4
Tetany, hypomagnesemic 19
TULZER, W. 3
Tyrosine transaminase 11
- Vitamin D 8, 22
VOGLER, G. 5
- WINBERG, J. 27
- ZETTERSTRÖM, R. 23