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ALTORJAY ISTVÁN: Gyermekkori sérülések és a töréskezelés szempontjai

Egészségügyi Munka 23, 33-38, 1986.

P.BELLAVITE, M.A.CASSATELLA, E.PAPINI, P.MEGYERI, P.ROSSI: Presence of cytochrome b_{-245} in NADPH oxidase preparations from human neutrophils

FEBS Letters 199, No.1, 1986. (English)

The composition of NADPH oxidase purified by Red Sephose chromatography of extracts from human neutrophil membranes was investigated. In contrast to that was recently reported by others, the enzyme isolated according to this procedure contained a high concetration of cytochrome b_{-245} and little FAD. The results reinforce the belief that cytochrome b_{-245} is a major component of the NADPH oxidase and plays a fundamental role in the formation of O_2^- by neutrophils.

BODA DOMOKOS: Az orális folyadék- és elektrolit bevitel helye a klinikumban

Oral fluids and electrolytes in the clinical practice

Orv.Hetil. 127, 1427-1431, 1986. (Hungarian)

Although the theoretical basis of fluid and electrolyte

therapy and its rules laid down decades ago have remained the same, there have been considerable changes in the occuring illnesses, the indications for the treatment and in the technical conditions, too. Therefore scrupulous attention must be paid to avoid the complications originating by the parenteraly applied fluids and electrolytes. In order to decrease the frequency and duration of parenteral infusion therapy oral rehydration and maintenance electrolyte solutions should be employed more often even under developed conditions of medical care. The author suggests a solution which was tried and tested in 75 patients with different illnesses, using clinical and laboratory methods and thus suitable for wide use in everyday practice.

BODA DOMOKOS, BARTYIK KATALIN, NAGY ERZSÉBET: Cefoperazonnal (Cefobid^{R}) elérhető eredmények újszülöttek, csecsemők és gyermekek különlegesen súlyos fertőzéseiben

Results of Cefoperazon (Cefobid^{R}) treatment in extremely severe infections of newborns, infants and children

Orv.Hetil. 127, 1375-1379, 1986. (Hungarian)

Cefoperazon, a third generation cephalosporin was tried in 20 newborns, mainly prematures and 20 infants and children, all under intensive care with extremely severe infections. The drug was applied after examinations and treatments involving

various interventions when septic complications occurred and in spite of traditional antibiotic therapy the patients condition showed no substantial improvement or the illness even progressed. Cefoperazon brought about a decisive and in some patients spectacular turn in the cpurse of the disease in more than half of the cases. Cefoperazon resistance was examined in comparison to 25 other antibiotics in bacteria from 167 miscellanous samples using a disc method. 73 of the 167 bacteria were found polyresistant 42 of which were sensitive to cefoperazon. Cefoperazon therapy may notably increase life expectancy of patients suffering from severe infections, especially sepsis, resisting to all known treatment. The authors suggest that in order to preserve this effectiveness of cefoperazon in high risk syndromes, the drug should be used in case of failure with all other antibiotics and only exceptionally as a first choise treatment.

DOMOKOS BODA, KATALIN BARTYIK, PÉTER SZÜTS, SÁNDOR TÚRI:
Active immunization of children exposed to varicella infection in a hospital ward using live attenuated varicella vaccine given subcutaneously or intracutaneously
Acta Paed.Hung. 27, 247-252, 1986. (English)

Active immunization using Takahashi live attenuated varicella vaccine was carried out fire 5times to prevent the spread of "imported" varicella in a hospital ward. Susceptibility was previously tested by serological examinations: 14 children were vaccinated subcutaneously, the other 19 received the vaccine intracutaneously. Vaccination within a few days following ex-

posure provided complete immunity in the great majority of cases. Intracutaneous administration was nearly as protective as the subcutaneous one.

BODA DOMOKOS, VÁRKONYI ÁGNES: Gastrooesophagealis reflux, mint változatos kórképek hátterében felismert újabb patológiai tényező

Gastroesophageal reflux: a newly recognized pathological factor in various diseases
Orv.Hetil. 127, 2669-2675, 1986. (Hungarian)

Gastroesophageal reflux (GER) can be recognized more frequently than before by measuring the intraesophageal pH both in acute live threating conditions and in chronically ill patients. In 1985 31 cases were diagnosed at the Szeged University Paediatric Department. Patients with GER revealed a wide variety of symptoms. A number of doctors in specialized wards and outpatients' departments attend to these patients, so the unequivocal interpretation of the symptoms meets further difficulties, whereas the recognition of the phenomenon decivisely influences the patients' prospects. GER is an important pathological factor at the back of many diseases causing great anxiety in practice. It's up-to date diagnostics and treatment is of fundamental importance.

BODA MÁRTA, VÁRKONYI ÁGNES, KUPECZ ILONA, KÓSA FERENC, LÁSZLÓ ARANKA: Coeliakia genetikai markereinek vizsgálata gyermekkorban

Study on the genetic markers of the celiac disease

Gyermekgyógyászat 37, 151-155, 1986. (Hungarian)

In search for genetic markers of the celiac disease authors studied the distribution of the main and subgroups of blood, serum groups, and erythrocytic enzyme allotypes not having been examined yet. The data showed however no deviation from the mean domestic population. It has been emphasized that a more accurate knowledge of the genetic background of the celiac disease requires additional examinations. Nevertheless, findings suggest the importance of enviromental factors in the development of the disease. In relationship with the examination of two pairs of twins the authors emphasize that if celiac disease is present in one of the identical twins gut biopsy is indicated in the other twin. The examination can be omitted after exclusion of monozygotic twins.

BODA MÁRTA, VÁRKONYI ÁGNES, RÓZSA KLÁRA, OLÁH ÉVA: Coeliakiás gyermekek családvizsgálata

Family analysis of children with celiac disease

Gyermekgyógyászat 37, 502-505, 1986. (Hungarian)

Based on body-height measurements of children with celiac disease and their family members authors studied the occurrence of small stature as compared to controls living under similar con-

ditions and of identical sex and age. There was no difference in body-height of children already on diet and their siblings and parents. Small stature was significantly frequenter in their first cousins not being on diet. Dwarfism in the family of children with celiac disease might be the only symptom of the occult disease. Therefore, the aimed examination of the family members is indicated.

GÁBOR DÓSA, KRISTÓF FÜZESI, ISTVÁN ALTORJAY, JÓZSEF BEVIZ:

Á tibia proximális metaphysisének törése gyermekkorban

Fracture of the proximal tibial metaphysis in childhood

Magyar Traumatológia 29, 34-40, 1986.(Hungarian)

The metaphyseal fracture of the long tubular bones heel in childhood and young age well and generally without complication. An expection is the fracture, with valgisation mechanism of the proximal metaphysis of the tibia. In the moment of the accident the pes anserius, together with the periosteum, is transversally thorn, distally from the fracture and is impinged into the fracture cleft. In consequence progressively a valgus position develops, that can be corrected by osteotomies with great difficulty. With an operation, performed immediately after the accident, and with taking out of the periosteum from the fracture cleft, the valgus deformation can be prevented. The cases presented should prove the importance of the primary operation.

FÜGG ZSUZSA: Pedagógia tevékenység a klinikai gyermekgyógyászatban

Magyar Pediáter 20, 177-180, 1986.

FÜZESI KRISTÓF, NÉMETH PÉTER, BEVIZ JÓZSEF: Csecsemő- és gyermekkorban végzett percutan transhepatikus cholangiographia

Percutaneous transhepatic cholangiography in infants and childhood

Gyermekgyógyászat 37, 248-251,1986.(Hungarian)

Authors report on their experiences with the percutaneous transhepatic cholangiography in infants and childhood. By means of the examination atresia of the bile duct, choledocus stenosis, and choledocus anomaly have been confirmed. The method is considered as invasive. Therefore, the examination in childhood should be performed only in certain selected cases suspect of anomaly of the bile duct. The manipulation requires skill and surgical availability to cope with complications.

FÜZESI KRISTÓF, TORNYOS SZABOLCS, ALTORJAY ISTVÁN: A portalis hypertoniát kísérő nyelőcső varixok sclerotizáló kezelése gyermekkorban

Sclerotizing treatment of oesophageal varicosity associated with portal hypertension in childhood

Orv.Hetil. 127, 2307-2309, 1986.(Hungarian)

The authors present their experience with sclerotizing treatment of oesophageal varicosity associated with portal hypertension in the childhood. 0.5% aethoxysclerol was given paravenously in the submucosa. The intervention was performed with a rigid tube the so-called Storz oesophagoscope. In the recent years the authors have applied this method on 100 occasions or so with satisfactory results. By cicatrizing the perivasal connective tissue, bleeding of the hazard of bleeding can be reduced. In the meantime portosystemic shunts may develop spontaneously or in need of operation the intervention can be carried out under more favourable conditions.

GYURKOVITS KÁLMÁN: A mozgásterápia szerepe mucoviscidosisos (cf) gyermekek gondozásában

Kinesitherapy in the treatment of children with mucoviscidosis (cf)

Gyermekgyógyászat 37, 70-73, 1986.(Hungarian)

With the improving new therapeutic possibilities the number of patients with recognized and treated cf keeps growing. It may be said that we are near to the molecular recognition of the basic alteration, to the exact determination of the gene defect which might open up new vistas in the therapy and prevention of the illness. Until then however the most important present task is the intensive prophylactic treatment of complications and the best rehabilitative care possible. Active and pas-

sive kinesitherapy plays a basic role in it. The favourable effect of kinesitherapy on cf patients as well as that of the physiotherapy on other chronic respiratory diseases offers many still undeveloped possibilities in Hungary.

GYURKOVITS KÁLMÁN, TOLDI ZOLTÁN, MUCSI JÁNOS: A Libexin köhögéscsillapító hatásának vizsgálata hisztaminnal és acetilkolinnal kiváltott légúti provokációs próbában asztmás gyermekeken

Examination of antitussive effect of Libexin in a respiratory provocation test induced by histamine and acethylcholine in asthmatic children

Pneumologia Hungarica 39, 36-41, 1986.(Hungarian)

Bronchoprotective effect of Libexin was examined in children showing hypersensitivity to histamine and acethylcholine by a pharmacapnographic respiratory function method. In both ways of provocation, Libexin exhibited a medium and strong protective effect, in 7 cases out of 10, respectively. Based on the promising experiences of the acute tests, authors recommend to examine the clinical use of Libexin in the complex treatment of asthmatic children. Per os administration of the drug is especially recommended in conditions of increased bronchial response to aspecific stimuli in dry, inproductive coughing.

GYURKOVITS KÁLMÁN, TOLDI ZOLTÁN, RÁPÓ JOLÁN, BODA DOMOKOS:

A Broncho-Vaxom kezelés klinikai tapasztalatai gyermekekben

Clinical results with Broncho-Vaxom in children

Gyógyszereink 36, 207-211, 1986.(Hungarian)

During the period from October to May altogether 80 children susceptible to respiratory infection have been given immunostimulant treatment by means of the double-blind technique. 40 children received Broncho-Vaxom capsules that contains 3.5 mg lyophilized bacteriolysate, whilst 40 children were given placebo. Recurrent respiratory infection and bronchitis were the most frequent indications. During the first month of the 6-months period daily one capsule has been administered. This treatment was followed by one month without treatment. During the following 3 months intermittent treatment (daily 1 capsule for 10 days followed by an interval of 20 days) has been applied. During the last (6th) month no treatment has been used. In none of the cases excluded from the evaluation did drug intolerance or adverse effects occur. In general capsules were taken without any problems. Vomiting has occurred in a single case, though it was not observed during the second treatment period. As compared to placebo evaluation showed a significant difference in respect of some diagnoses, e.g. otitis, tonsillitis, severe bronchitis, and pneumonia, as well as in the appraisal of subjective results. The objective indices confirmed in both groups a similar improvement with reg-

ard to the occurrence of infectious diseases, the duration of the disease, and the time of antibiotic treatment. Within the 6-month treatment an essential improvement during the second 3-month period has been observed in the Broncho-Vaxom group, as compared to the first 3 months. The Broncho-Vaxom treatment of children between the age of 1 to 14 susceptible to bacterial or viral respiratory infections does not involve any risks. Authors advocate a 3-month intermittent treatment by means of 1 capsule/day for 10 days/month as preventive measure. For the treatment of respiratory infections: 30 capsules during the first month and 10 capsules during each of the months 3 to 5. To confirm the action of the drug objective laboratory methods would be required, the presently used techniques (immunoglobulin determination, lymphoblast transformation, cellular immune response) are not suitable.

HAVASS ZOLTÁN, LÁSZLÓ ARANKA, KOVÁCS ZOLTÁN: Kvantitativ vékonyréteg-chromatographiás módszer homogentizinsav-ürítés kimutatására alcaptonuriás esetekben

Quantitative thin layer chromatography for the demonstration of homogentisic acid voiding in alcaptonuria

Gyermekgyógyászat 37, 192-195, 1986.(Hungarian)

Authors report on 3 newborns and infants, respectively, with alcaptonuria, two of which were siblings. Possibilities of the

qualitative and quantitative demonstration of homogentisic acid voiding, as well as the used quantitative thin layer chromatographic method have been discussed.

KATONA MÁRTA, KERTÉSZ ERZSÉBET: Echocardiographia helye az újszülött intenzív osztályon

The place of echocardiography at the intensive therapy unit of newborns

Gyermekgyógyászat 37, 337-342, 1986.(Hungarian)

Authors report on the early results with the echocardiographic examination of newborns at the intensive therapy unit. They emphasize the non-invasive character of the method void of any risk to the patient, which can be used in patients requiring intensive therapy. The method is reliable for the detection of certain congenital heart defects and thus enables in future to reduce the number of heart catheterization. The method was found particularly suitable for the examination of Botallo's duct in prematures.

KATONA MÁRTA, KERTÉSZ ERZSÉBET, BARTYIK KATALIN, GÁBOR KATALIN: A hyperoxia-hyperventillatiós teszt alkalmazása újszülöttkori perzisztáló pulmonalis hypertensio diagnosztikájában és kezelésében

Use of hyperoxia-hyperventilation test in

the diagnostics and therapy of persistent pulmonary hypertension in the neonate
Orv.Hetil. 127, 1003-1008, 1986.(Hungarian)

The authors report on the favourable experiences gained with hyperoxia-hyperventilation test (HHT) in the differential diagnostics of neonatal cyanosis. HHT was carried out with neonates owing to suspected persistent neonatal pulmonary hypertension (PPHN) and congenital heart defect associated with right-left shunt. On the basis of the HHT, PPHN was diagnosed in 8 cases and congenital valvular disease with right-left shunt in 2 cases. The basis of the diagnostic procedure in that upon the effect of hypocapnia, alkalosis and hyperoxia developing after respiration of 100% of O_2 with appropriately low (critical) pCO_2, vasodilatation may be induced in neonates suffering from PPHN. In congenital heart defect associated with right-left shunt the HHT is negative. The registration of the respiratory parameters necessary for obtaining the critical pCO_2 level in the course of HHT is important for the appropriate adjustment of respirator setting. The results show that the use of HHT gives significant help in the diagnostics and therapy of PPHN. Pneumothorax or neurological injuries did not occur among the patients of the authors.

LÁSZLÓ ARANKA: A HLA-rendszer és a betegségek összefüggése, a genetikailag meghatározott kórképek kiemelésével

Relationship of HLA-sytem and diseases, accentuating the genetically determined diagnoses

Orvosképzés 61, 388-399, 1986.(Hungarian)

Recent knowledges on histocompatible lymphocytic antigens are reviewed from genetic and serologic aspects, as well as, the features and classification of recently recognized HLA-systems are discussed. Relating to the connection of HLA-system and diseases, mucoviscidosis, congenital adrenogenous hyperplasia of 21-hydroxylase deficiency, genodermatosis, sclerosis tuberose familial cardiomyopathy, early myocardic infarction and nephrotic syndrome are reviewed from the hereditary diseases.

LÁSZLÓ ARANKA, CSALÁNOSINÉ NÉMETH MÁRTA, JOÓ IMRE, KISS ÉVA, HAVASS ZOLTÁN, SZENOHRADSZKI PÁL: Krónikus uraemiás betegek szérum lipid- és lipoprotein változásai haemodialysis kezelés kapcsán

Changes of serum lipids and lipoproteins of chronic uraemic patients due to haemodialysis treatment

Orv.Hetil. 127, 1129-1131, 1986.(Hungarian)

In haemodialyses chronic uraemic patients treated in haemodialysis program the HDL-cholesterol, beta-lipoprotein, serum neutral lipids, triglyceride, free fatty acids (FFA), phospholipid levels were determined before and immediately after the

haemodialysis. The serum lipoprotein fractions were analysed by lipoprotein electrophoresis for determination of different types of the Fredrickson-hyperlipoproteinaemias (HLP). 41.5% of the patients showed a low level of HDL-cholesterol before haemodialysis and was a slight inqreased in the average value of the total group of patients after haemodialysis therapy. The serum beta-lipoprotein significantly decreased due to haemodialysis, while the FFA level significantly increased. Slight correlations were observed between the applied transmembrane pressure, of body weight loss after haemodialysis and the serum concentration of FFA, HDL-cholesterol or total cholesterol level. Hyperbeta-lipoproteinaemia was found in 70.9 percent of the haemodialysed chronic uraemic patients showed Fredrickson-hyperlipoproteinaemias. The occurrences of HLP II. b, IV, and II. a were 14.7, 3.6% respectively.

LÁSZLÓ ARANKA, KLUJBER LÁSZLÓ, SVÉKUS ANDRÁS: Bicarnesinnel sikeresen kezelt carnitin-hiányos myopathia; klinikai-kémiai és izom-morphológiai vizsgálatok

Bicarnesine-treated carnitine deficient myopathy; clinico-chemical and morphological investigations

Orv.Hetil. 127, 777-779, 1986.(Hungarian)

Authors report on a successful Bicarnesine replacement therapy in an infant girl patient suffering from carnitine deficient myopathy diagnozed at 8-month-age. The hypotonic patient's

motoric functions improved and she became able to walk as a result of therapy applied. Free and esterified carnitine were determined from the serum and muscle biopsy-material. After the Bicarnesine-supplementation the serum carnitine fractions elevated.Results of light and electrone microscopic investigation on the biopsy specimens will be discussed.

ARANKA LÁSZLÓ, MÁRTA NÉMETH, IMRE JOÓ, ÉVA KISS, ZOLTÁN HAVASS, PÁL SZENOHRADSZKI: Changes of serum lipids and lipoproteins during haemodialysis treatment in dialysed chronic uraemic patients
International Urology and Nephrology 18, 463-470, 1986. (English)

Changes of serum lipids and lipoproteins were determined quantitatively before and after haemodialysis in chronic uraemic patients. Serum beta-lipoprotein significantly decreased due to haemodialysis, while alpha-lipoprotein and the FFA level significantly increased. Slight correlations were observed between the applied transmembrane pressure and the serum concentration of FFA, HDL-cholesterol or total cholesterol levels.

Hyperbeta-lipoproteinaemia was found in 70.9 per cent and Frederickson-HLP in 33.3% of the haemodialysed chronic uraemic patients.

ARANKA LÁSZLÓ, ILDIKÓ PETRI, MÁRIA ILYÉS: Antibody dependent cellular cytotoxicity (ADCC)-reaction and an

in vitro steroid sensitivity test of peripheral lymphocytes in children with malignant haematological and autoimmune diseases

Acta Paed.Hung. 27, 23-29, 1986. (English)

ADCC reaction (antibody dependent cellular cytotoxicity), ADCC capacity and ADCC steroid sensitivity examinations were performed in 20 children with tumorous or haematological diseases, 10 children with autoimmune diseases, and appropriate controls, in order to establish the killer function and steroid sensitivity. In the above diseases a study was also made of the correlation of the individual reactions with the duration of steroid therapy.

The two patients groups did not exhibit a significant difference from the controls as concerns the ADCC reaction and ADCC capacity.

In the group of tumorous or malignant haematological diseases the steroid sensitivity behaved in a different way, with sensitivity in 45%, moderate sensitivity in 20%, and steroid resistance in 35% of the patients. Steroid inhibition of the ADCC reaction was significantly decreased in the group of autoimmune patients.

There was no correlation between ADCC reaction and ADCC steroid sensitivity or resistance in either group, and thus the ADCC steroid resistance or sensitivity and lymphocyte killer function proved to be independent. No correlation was found between the steroid sensitivity or resistance and the duration of steroid treatment.

ARANKA LÁSZLÓ, M. SIMON: Serum lipid and lipoprotein levels in premature ageing syndromes: total lipodystrophy and Cockayne syndrome

Arch.Gerontol.Geriatr. 5, 189-196, 1986.(English)

Serum lipids and lipoproteins were investigated in two girls who suffered from total lipodystrophy, in their family members, and in two brothers suffering from Cockayne syndrome. Hyperlipoproteinemia type IIb (Fredrickson) was detected in one case with total lipodystrophy. Very low levels of serum high density lipoprotein cholesterol (HDL-Ch) were observed in both of total lipodystrophic cases, in most of their first degree relatives, and in one of patients with Cockayne syndrome.

Because total lipodystrophy and the Cockayne syndrome belong to ageing syndromes they can serve as a useful model of premature arteriosclerosis and the defect lipid metabolism.

LÁSZLÓ ARANKA, ZOMBORI JÁNOS, HALÁSZ JENŐ, MÉSZÁROS MAGDA: Összefüggések a klinikai és az izommorphológiai (histochemiai és elektronmikroszkópikus) jellemzők között X-hez kötött myopathiákban

Correlations between clinical findings and histochemical changes in X-linked recessiv myopathy

Orv.Hetil. 127, 1943-1947, 1986.(Hungarian)

Histochemical and ultrastructural examinations were carried

out on m. gastrocnemius biopsy material from X-linked recessiv myopathic male children (mostly Duchenne muscular dystrophy /DMD/, partly Becker-type of myopathy). Muscle fibres of types I. and II. were distinguished through examinations of succinyl-dehydrogenase, NADH-diaphorase, ATP-ase, lipid staining, van Gieson, PAS and digested PAS techniques. The proportions of atrophic and hypertrophic muscle fibres were established on the basis of the ultrastructural stage classification. Spearman rank correlations were calculated between the serum CK activity, the clinical stage and the duration of myopathy. The correlations were also examined between these clinical parameters and the histochemical findings. There were significant correlations between the duration of myopathy and serum CK activity, between the ultrastructural stage and duration of myopathy, between the proportions of total atrophic and hypertrophic muscle fibres, between the total atrophic fibres and atrophic fibres type I. and the duration of myopathy and the atrophic fibres type I., total hypertrophic fibres and the proportion of hypertrophic fibres type I.; between the clinical stage and the atrophic fibres type I., and the total hypertrophic fibres.

PÁL MEGYERI, EMŐKE ENDREFFY: Improvement of defective bactericidal capacity of polymorphonuclear leukocytes by Izoniazide in a case of chronic granulomatous disease

Acta Paediatr.Scand. 75, 668-669, 1986.(English)

(Short communication)

MEGYERI PÁL, VELŐSY GYÖRGY, GYURKOVITS KÁLMÁN: Lipolitikus aktivitás vizsgálata anyatejben

Study of lipolytic activity in mother's milk

Orv.Hetil. 127, 2239-2241, 1986.(Hungarian)

A simultaneous study was made of the lipase and esterase activities in untreated mother's milk. The esterase activity (EC. 3.1.1.1. + EC. 3.1.1.-,)(51.3 ± 24.9 kU/l) was substantially higher than the lipase activity (EC. 3.1.1.3.)(2.25 ± 1.31 kU/l), which indicates that the lipase activity, previously believed to play the major role in the metabolism of fats and fatty acid esters, is only a small proportion of the total activity. The esterase activity can be partially blocked with an organic phosphate (BNPP = bis-paranitrophenyl phosphate), which points to the presence of a number of differentiable enzymes. In response to pasteurisation, the enzyme activities were eliminated.

ROMÁN FERENC, TOLDI ZOLTÁN, KÜRTI KÁLMÁN, PATAKI LAJOS: A vörösvérsejtek elektrolit eltérései juvenilis diabetes mellitusos betegeinkben

Red blood cells' electrolytes in juvenile diabetes mellitus

Orv.Hetil. 127, 761-763, 1986.(Hungarian)

Sodium and potassium concentration of red blood cells and

plasma was investigated in 21 children suffering from juvenile diabetes mellitus. Measurements were done prior to 1, and 2h following insulin administration. Erythrocytic sodium concentration was significantly higher, that of potassium significantly lower before insulin treatment as compared to the control values. These differences between diabetics and healthy controls disappeared 1 or 2 hours following insulin administration. Great extent of electrolyte changes in diabetics erythrocytes during a short periode of time is stressed. Potassium content of plasma in diabetes was significantly decreased following insulin as compared to the pretreatment values. No correlation was found between the electrolyte levels and fasting blood glucose values. Nevertheless, a negative correlation ($p<0,02$) existed between the potassium content of red blood cells and the duration of the illness. Pathogenetical, diagnostic and therapeutic implications of the results are discussed.

SALGÓ LÁSZLÓ: A Streptococcus identifikálás új lehetősége: az API 20 Strep teszt

New possibility for Streptococcus identification: API 20 Strep test

Lab.Diagn. 13, 62-64, 1986. (Hungarian)

The author investigated 253 microba being attached to Streptococcus genus applying the API 20 Strep Test. To compare the Pharmacia Phadebact Streptococcus Test, the CAMP method, and testing of sensitivity for bacitracin was maded, as well. In their study the authors discussed the applying of API 20 Strep Test circumstantially and they concluded, that the method be-

ing based only on biochemical reactions and nature of haemolysis correctly identified this investigated bacterium in 99.2%.

SALGÓ LÁSZLÓ, MAGYARLAKI ANNA: Szérum vasmeghatározások összehasonlítása

Lab.Diagn. 13, 67-68, 1986.

(Rövid közlemény)

SALGÓ LÁSZLÓ, MOHOLI KÁROLY, PETHŐ GÁBOR, SZOMBATHELYI PÉTER, BÓDIS LAJOS: Kadmium meghatározás terhességben

Cadmium determination in pregnancy

Orv.Hetil. 127, 2797-2800, 1986.(Hungarian)

Cadmium is a very toxic, non-essential element. The amniotic fluids of 89 pregnant women, and the sera of 265 pregnant woman and control, were investigated on their cadmium, copper, zinc, iron and total protein concentrations. The cadmium level in cord blood samples are similar to those in maternal blood and control, and so the placenta does not provide a protective barrier against this element. The authors demonstrated that the smokers generally had not significantly higher cadmium level in amniotic fluid and in maternal sera, too.

SALGÓ LÁSZLÓ, NAGY ERZSÉBET: ABAC baktérium-érzékenységmeghatározó készülék használata során szerzett tapasztalataink

Our experiences applying ABAC instrument for determination of bacterium-resistance
Lab.Diagn. 13, 64-67, 1986. (Hungarian)

The authors compare the new possibility of automatised antibiogram's making by applying of ABAC instrument with the classic Bauer-Kirby method. By testing of 521 mixed clinical isolates they found in the group of Gram negative bacteria 86 percentile and in Gram positive bacteria 90 percentile identity. With the ABAC instrument the resistance will be quickly determined and the time of valuation will be decreased.

SZABADOS ÉVA, RIBÁRI OTTÓ, JÓRI JÓZSEF, ILYÉS MÁRIA, BOHUS KLÁRA: A rhabdomyosarcoma fül-orr-gégészeti vonatkozásairól

About E.N.T.-relations of rhabdomyosarcoma
Fül-orr-gégegyógyászat 32, 101-106, 1986. (Hungarian)

The authors give account of two rhabdomyosarcoma cases in children, where this rare entity in E.N.T.-field occured. They give a survey of literature and, call the attention to the importance of localisation of the tumour, of the early diagnosis and, of the combined surgical-, irradiation-, and cytostatic treatment, which determines the surviving of patients.

SZTRIHA LÁSZLÓ: Epilepszia-gondozásunk öt éve a SZOTE Gyermekklinikán

Five-years result with the health care of epileptic children at the Pediatric Department of the SZOTE University

Gyermekgyógyászat 37, 545-549, 1986.(Hungarian)

Data of 100 epileptic children have been analysed. Inheritance, neuropathic and neuroradiological changes were most common in BNS, myoclonic-astatic, and focal epilepsy. Treatment results and prognosis depend mainly on the type of the attack and were favourable in absence epilepsy and unfavourable in BNS and myoclonal-astatic attacks.

LÁSZLÓ SZTRIHA: Increased lipid peroxide formation in the rat forebrain during kainic acid seizures

Biomed.Biochem.Acta 45, 491-494, 1986.
(English)

The formation of malondialdehyde, a lipid peroxidation product, was investigated by the thiobarbituric acid test in the forebrain of rats 4 h following systemic kainic acid administration. A significant increased level of malondialdehyde was found in the treated animals as compared to controls. The increased lipid peroxide formation may be the consequence of seizure activity, induced by kainic acid and may have deleterious effects on the cell membranes.

SZTRIHA LÁSZLÓ, BOZÓKY BÉLA, LÁSZLÓ ARANKA, TISZLAVICZ LÁSZLÓ: Subacut necrotizéló encephalomyelopathia két esete

Two subacute necrotizing encephalomyelopathy cases

Orv.Hetil. 127, 399-401, 1986.(Hungarian)

The authors report on two subacute necrotizing encephalomyelopathy cases (Leigh disease). The clinical signs of the disease of fatal outcome with severe generalized muscular hypotonia as well as the histopathological changes are reported.

LÁSZLÓ SZTRIHA, FERENC JOÓ: Intraendothelial accumulation of calcium in the hippocampus and thalamus of rats after systemic kainic acid administration

Acta Neuropathol. 72, 111-116, 1986.(English)

The accumulation of calcium in the hippocampal and thalamic vascular endothelium and the perivascular space was detected histochemically by means of the pyroantimonate technique 30, 60 and 120 min after systemic kainic acid administration. An increased number of calcium pyroantimonate deposits was found in the endothelial mitochondria 60 min after kainate injection. The mitochondria were swollen at this time and vacuoles containing deposits were observed. After 120 min a pronounced perivascular glial swelling was conspicuous, besides the numerouos endothelial mitochondrial deposits. The swollen

glial processes contained a large number of pyroantimonate deposits. It seems likely that the transendothelial calcium transport processes are accompanied by intraendothelial calcium accumulation and mitochondrial calcium sequestration.

L. SZTRIHA, F. JOÓ, P. SZERDAHELYI: Time-course of changes in water, sodium, potassium and calcium contents of various brain regions in rats after systemic kainic acid administration
Acta Neuropathol. (Berl) 70, 169-176, 1986. (English)

The changes in the water, sodium, potassium and calcium content of the frontoparietal cortex, hippocampus, thalamus and cerebellum in rats were investigated 2,4,8,12 and 24 h and 3 and 7 days after systemic kainic acid administration. The water content was significantly increased in the thalamus and hippocampus 4 and 8 h, respectively, after the kainic acid injection and remained elevated at each subsequent time point. No change was found in the water content of the frontoparietal cortex and cerebellum. The sodium content of the frontoparietal cortex, hippocampus and thalamus was increased 4 h after kainic acid administration, and that of the cerebellum after 8 h. These levels remained elevated throughout the 7 days, with the exception of that for the frontoparietal cortex. A significant potassium decrease was observed in all brain regions investigated. Calcium accumulation was found to begin 4 h after kainic acid administration and was the most pronounced on the 7th day in

the thalamus and hippocampus. Electron microscope investigations revealed a mainly intramitochondrial calcium accumulation in these brain regions. Pretreatment with Verapamil did not prevent calcium accumulation. The ion shifts and the development of edema in the thalamus and hippocampus in the early period, and also the changes of the sodium and potassium contents in the frontoparietal cortex and cerebellum in the early and late (12 h and later) periods, can be regarded as concomittant events of epileptic activity. In the hippocampus and thalamus, severe secondary necrotic and hemorrhagic neuropathological damage was accompanied by ion shifts and edema in the late period after systemic kainic acid administration.

L. SZTIHA, F. JOÓ, P. SZERDAHELYI, E. ECK, M. KOLTAY:
Effects of dexamethasone on brain edema induced by kainic acid seizures
Neuroscience 17, 107-114, 1986. (English)

The histopathological alterations developing in the hippocampus, piriform cortex and thalamus of the rat brain, the blood-brain barrier damage, and the effects of dexamethasone pretreatment on the brain edema were investigated 4 h following intraperitoneal kainic acid administration. The most pronounced Evans Blue extravasation accompanied by increases in the water and sodium contents and a decrease in the potassium content, were observed in the thalamus. Dexamethasone, injected in a dose of 5 mg/kg 2 h before kainic acid administration, reduced considerably the vasogenic edema and neuronal damage

in the thalamus, but the cytotoxic edema of the hippocampus and piriform cortex remained unaltered.

Kainic acid-induced seizures lead to the development of vasogenic brain edema mainly in the thalamus, as well as to cytotoxic edema in the hippocampus and piriform cortex. The vasogenic edema seems to contribute to the cell damage in the thalamus. Dexamethasone reduces the vasogenic edema and cell damage in the thalamus, possibly by inducing the synthesis of certain protein(s) with antiphospholipase A_2 activity.

LÁSZLÓ SZTRIHA, ZOLTÁN LELKES, GYÖRGY BENEDEK, FERENC JOÓ:
Potentiating effect of morphine on seizures induced by kainic acid in rats
Naunyn-Schmiedeberg's Arch.Pharmacol. 333, 47-51, 1986. (English)

The effect of morphine pretreatment on kainic acid-induced seizures in rats was investigated by electroencephalographic recording. Seizure activity was quantified by counting the number of spikes in the EEG of freelymoving rats during 2 min periods at 30 min intervals after the intraperitoneal administration of 8, 10 or 12 mg/kg kainic acid. Pretreatment with morphine (1-10 mg/kg s.c.) 10 min before kainic acid administration significantly increased the number of spikes in the EEG in a dose-dependent manner. The potentiating effect of morphine on kainic acid-induced seizures was reduced considerably, but not abolished completely by pretreatment with naloxone (2-5 mg/kg s.c.). The results indicate that the potentiating action of morphine on kainic acid-induced seizures may be exerted in

both a specific, naloxone-reversible manner and a non-specific, naloxone-resistant manner.

L. SZTRIHA, SZ. TORNYOS, K. FÜZESI, GY. HARMAT, IBOLYA VRANEK:
Erfahrungen mit der kontinuierlichen Liquorableitung bei Frühgeborenen mit Ventrikelblutung
Kinderärztl.Praxis 54, 319-324, 1986.(German)

Es wird über Erfahrungen mit der Langzeit-Liquorableitungsbehandlung bei Frühgeborenen mit Ventrikelblutung berichtet. Mit der Liquorableitung wurde beim Erscheinen der Symptome des progressiven Hydrocephalus im Alter von 25-60 Tagen begonnen und diese 8-42 Tage hindurch aufrecht erhalten. Bei einem der 6 Pat. wurde eine Ventilimplantation nicht erforderlich, bei dreien musste ein ventriculo-atriales Ventil implantiert werden; 2 Pat. starben infolge von Infektionen. Bei einem Patienten ist die psychomotorische Entwicklung normal, bei einem ist die Entwicklung schwer und bei einem mässig retardiert, und bei einem weiteren sind überaus schwere neurale Schädigungen zu beobachten. Der in einem subkutanen Tunnel geführte Katheter ermöglicht eine langfristige sichere Liquorableitung. Zur vorübergehenden Behandlung des posthämorrhagischen Hydrocephalus der gewöhnlich in schwerem Allgemeinzustand befindlichen Frühgeborenen scheint oft die Liquor-Dauerableitung die einzige Möglichkeit.

TEKULICS PÉTER, KATONA MÁRTA, KERTÉSZ ERZSÉBET, KOVÁCS GÁBOR:

A coarctatio aortae gyermekkori sebészi kezelésének eredményei

Surgical treatment of coarctation of the aorta in childhood

Orv.Hetil. 127, 1799-1805, 1986.(Hungarian)

The authors give a comprehensive survey of patients who underwent cardiac surgery at the Cardiac Center, University Medical School, Szeged during a 15 year period (1.1.1970-31.12.1985). The results are discussed with respect to the type of operation, postoperative care and outcome of the disease. The age and body weight of the patients ranged from 2 days to 14 years and 2.9 to 61.5 kg, respectively. Out of 69 patients operated on due to coarctation of the aorta, 36 suffered from an isolated coarctation of the aorta. In most cases coarctation of the aorta was associated either with a patent duct (20 cases) or ventricular septal defect (13 cases). The surgical correction was performed with dacron patch in 34 cases, by end-to-end anastomosis in 17 cases and by Waldhausen's plastics in 12 cases. Direct plastics was performed only in 4 cases. Early mortality was 8.7 per cent (6 cases) exclusively due to deaths occuring among infants with associated heart defect. The significance of the determination of the time and type of the surgical correction in relation to recoarctation, late-onset hypertonia, possible development of an aneurysm and the functional impairment of the left arm is discussed in the light of the relevant literature and the authors's experience. Finally, the authors summarize the

principles of the surgical and post operative management of this particular congenital heart defect.

PÉTER TEMESVÁRI, FERENC JOÓ, GÉZA ÁDÁM, ERNA ECK: Parallelism between the activation of the adenylate cyclase (AC) in brain microvessels and the trans-endothelial albumin transport in newborn piglets with experimental pneumothorax (EPT)
In: Pharmacology of cerebral ischemia. (Ed.: J.Krieglstein, Elsevier Science Pub. Amsterdam-New York-Oxford, 1986.) pp. 270-274. (English)

Kinetic parameters of the albumin transport and the AC activity were determined during and after an acute hypoxic-hypercapnic insult in newborn piglets by EPT in the cerebral microvessels isolated by ultracentrifugation from different staged of brain damage. A decrease of AC activity was observed in the cerebral microvessels of animals with acute hypoxic-hypercapnic condition. However, the AC activity was to be found increased significantly in the microvessels during recirculation parallel to the degree of extravasation of Evans blue dye. The activation of AC in the brain microvessel wall may be of pathogenic importance in the development of vasogenic brain oedema.

J. TOLDI, Z. FARKAS, O. FEHÉR, W. DAMES, P. KÁSA, K. GYURKOVITS, F. JOÓ, J.-R. WOLFF: Promotion by sodium bromide of functional

synapse formation from foreign nerves in the superior cervical ganglion of adult rat with intact preganglionic nerve supply

Neuroscience Letters 69, 19-24, 1986.(English)

The possible effect of sodium bromide (NaBr) (a substance with known inhibitory action on synatic transmission) was studied on synapse formation with foreign nerves, implanted into the superior cervical ganglion of adult rats. It was found that in spite of the presence of preganglionic nerve supply, both implanted nerves (n.XII and n.X, respectively) were enabled to establish functional synapses with the principal ganglion cells in NaBr-treated animals. In contrast, synapse formation was almost absent in ganglia of sodium chloride drinking (control) rats with intact preganglionic nerve supply. This effect of NaBr is considered to be analogous to that of GABA, whose promoting action on synaptogenesis in adult rat superior cervical ganglion has been previously described.

TOLI ZOLTÁN, GYURKOVITS KÁLMÁN: A vörövérsejtek és a plazma Na^+, K^+ koncentrációja akut és krónikus bronchitises, valamint mucoviscidosisos gyermekekben

Plasma and red blood cell concentrations of sodium and potassium in acute and chronic bronchitis, asthma and cystic fibrosis in childhood

Orv.Hetil. 127, 2497-2499, 1986.(Hungarian)

Plasma and red blood cell concentrations of sodium and potassium were measured in children, 19 of them suffering from acute bronchitis, 16 with chronic bronchitis, 11 with acute obstructive bronchitis, 26 with recurrent obstructive bronchitis and asthma, and 12 with cystic fibrosis. As compared to the values for healthy children, the red blood cell sodium levels were significantly higher in acute bronchitis, acute obstructive bronchitis and the acute phase of asthma. In contrast significantly lower sodium levels were found in recurrent obstructive bronchitis, symptom-free asthma and cystic fibrosis.Plasma sodium and potassium measurements revealed no marked changes. The results are discussed in terms of altered red blood cell membrane electrolyte transport processes under pathological conditions and/or due to treatment.

ZOLTÁN TOLDI, SÁNDOR TÚRI: Sodium and potassium concentrations of red blood cells and plasma in children with nephrotic syndrome, uraemia and pyelonephritis
Acta Paed.Hung. 27, 283-288, 1986.(English)

The sodium and potassium concentrations of the red blood cells and the plasma in 38 children with pyelonephritis (19 acute, 10 chronic and 9 healed), 5 children with uraemia, and 20 children with nephrotic syndrome were compared with those of control children. The red blood cell sodium concentration was lower in patients with acute pyelonephritis, uraemia and steroid-treated

nephrotic syndrome, and higher in those with chronic pyelonephritis and nephrotic syndrome not treated with steroids. Except in uraemic cases, these alterations were not accompanied by plasma sodium and potassium changes. The results might be explained by pathological Na^+ and K^+ transport processes in the red cell membrane. The possible role of extracellular fluid volume changes, sodium loss and water retention are discussed.

TÚRI SÁNDOR, BEATTIE JAMES THOMAS: A prostacyclin anyagcsere vizsgálatának jelentősége a haemolyticus uraemiás szindróma és a thromboticus thrombocytopeniás purpura kezelésében

The significance of prostacyclin metabolism investigations in the treatment of patients with haemolytic uraemic syndrome and thrombotic thrombocytopenic purpura

Orv.Hetil. 127, 1747-1752, 1986.(Hungarian)

The effect of plasma exchange (PE), plasma transfusion and prostacyclin (PGI_2) therapy was investigated on PGI_2 metabolism in patients with severe haemolytic uraemic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP). In TTP patient presenting an absent level of PGI_2 supporting activity (PSA) in the plasma without inhibitory effect against PGI_2 production or PGI_2 effect serially administered fresh frozen plasma increased PSA activity. Plasma therapy combined with PGI_2 infusion induced a complete remission in the renal function and

a fairly good regeneration was observed in the foot capillary perfusion. In plasma from HUS patient PSA level increased significantly following PE therapy and inhibitory activity against PGI_2 production and PGI_2 effect diminished. On the basis of PGI_2 results plasma + PGI_2 therapy has a benefical effect in TTP patients with isolated PSA deficiency, and PE is a causal treatment in severe HUS cases with inhibitors against PGI_2 production and PGI_2 effect.

TÚRI S., BEATTIE T.J., BELCH J.J.F., MURPHY A.: A prostacyclin metabolizmus változása haemolyticus uraemiás szindrómás gyermekek és családtagjaik plazmájában

Disturbances of prostacyclin metabolism in children with hemolytic uremic syndrome

Orv.Hetil. 127, 69-75, 1986.(Hungarian)

Plasma from 24 children with hemolytic uremic syndrome (HUS, 10 in acute, 14 in remission phase), 42 first degree relatives and 24 controls were studied for PGI_2 supporting activity (PSA) from human umbilical arterial rings, and the concentration of PGI_2 metabolite (PGI_2m). HUS patients in acute phase showed very low or absent level of plasma PSA, which remained depressed 3 months following presentation. Plasma from 2/5 acute HUS patients showed inhibition against PGI_2 production and PGI_2 effect. Initially, the mean value of PGI_2m was elevated, but following that fell below control range and remained decreased in patients

on long term remission. 18 family members had lower plasma PSA levels than the controls. Which suggest that persistently low PSA levels in HUS patients may reflect an inherited predisposition.

S. TÚRI, T.J. BEATTIE, J.J.F. BELCH, A.V. MURPHY: Disturbances of prostacyclin metabolism in children with hemolytic-uremic syndrome and in first degree relatives

Clinical Nephrology 25, 193-198, 1986.(English)

Plasma from 24 children with hemolytic-uremic syndrome (HUS) (10 in acute, 14 in remission phase), 42 first degree relatives and 24 controls were studied for PGI_2 supporting activity (PSA) from human umbilical arterial rings and the concentration of PGI_2 metabolite (PGI_2m). HUS patients in acute phase showed very low or absent level of plasma PSA, which remained depressed 3 months following presentation. Plasma from 2 out of 5 acute HUS patients showed inhibition against PGI_2-like activity, and depressed preservation of PGI_2 effect. The mean value of PGI_2m in acute phase of HUS patients was elevated initially, but fell below control range by the day 14 and remained decreased at the end of 3rd month. Patients on long term remission showed a significantly lower concentration of plasma PGI_2m. Eight of 14 HUS patients in remission and 18 of 42 family members had lower PSA levels than the controls. These studies confirmed a decreased PSA in HUS and suggest that persistently low PSA levels may reflect an inherited predisposition.

S. TÚRI, J.J.F. BELCH, T.J. BEATTIE, C.D. FORBES: Abnormalities of vascular prostaglandins in Henoch-Schönlein purpura

Arch.Dis.Child. 61, 173-177, 1986.(English)

The ability of plasma to support prostacyclin like activity from human umbilical arterial rings was studied in 17 patients with Henoch-Schönlein purpura and 17 controls matched for age and sex. Plasma from 13 of the 17 patients showed a diminished or absent ability to support prostacyclin like activity in vitro. Six patients whose plasma had a low or absent ability to support prostacyclin like activity showed evidence of inhibitory activity. Plasma from three of these patients also failed to preserve the effect of a stable prostacyclin like analogue (ZK36-374). The plasma concentration of prostacyclin metabolite and the serum concentration of thromboxane A_2 metabolite, thromboxane B_2, were measured simultaneously. The concentration of plasma prostacyclin metabolite in 10 of the 14 patients was decreased, and a positive correlation was found between the plasma prostacyclin metabolite values and the ability of the plasma to support prostacyclin like activity. There was no significant difference in the serum thromboxane A_2 metabolite concentrations between the patients and controls. These data suggest that abnormalities of vascular prostaglandin metabolism are involved in the pathophysiology of Henoch-Schönlein purpura.

TÚRI SÁNDOR, HAVASS ZOLTÁN, BODROGI TIBOR: Szérum és vizelet béta-2-mikroglobulin vizsgálatok gyermekkori nephrosis-szindrómában és krónikus pyelonephritisben

Studies on the serum and urine concentration of beta-2-microglobulin in children with nephrotic syndrome and chronic pyelonephritis
Gyermekgyógyászat 37, 145-150, 1986.(Hungarian)

By means of enzyme immunoassay authors examined the beta-2--microglobulin content of the serum and urine in children with nephrotic syndrome and chronic pyelonephritis. Serum and urine content was, as compared to controls, significantly higher in the steroid resistant group and children with chronic pyelonephritis. Results of the serum beta-2-microglobulin concentrations showed a close correlation with creatinine clearance. The creatinine clearance exceeding 65 mg/min/1.73 m^2 findings showed a broad dispersion. Accordingly, determination of beta-2-microglobulin serum content does not substitute the traditional clearance methods, provide however more accurate information as serum creatinine, on the medium or severe GFR impairment ($<$ 65 mg/min/1.73 m^2). A significantly negative correlation was found between the beta-2-microglobulin content and concentration capacity of the urine. The observation suggests that in cases of chronic pyelonephritis and nephrotic syndrome progressing for longer time the functional abnormality affects the entire tubular system.

SÁNDOR TÚRI, ZOLTÁN HAVASS, TIBOR BODROGI: The role of renal prostaglandin E as a possible modulator of cyclic AMP production in nephrotic syndrome
Int.Urol.Nephrol. 18, 321-325, 1986.(English)

Urinary prostaglandin E (PGE) and cyclic AMP (cAMP) excretions were studied by radioimmunoassay in children with nephrotic syndrome and in a control population. In cases with nephrotic syndrome there was a significant elevation in urinary PGE excretion and cAMP excretion was decreased. A positive correlation was found between urinary cAMP excretion and urinary osmolality (U_{osm}) and the ratio urine to plasma osmolality (U_{osm}/P_{osm}); and a negative correlation between urinary cAMP excretion and urine volume. A negative correlation was observed between the values of PGE excretion and urinary cAMP. These data confirmed the role of PGE as a modulator of cAMP production, which was inhibited in the nephrotic syndrome.

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ÁBRAHÁM ANNA, SALGÓ LÁSZLÓ, BEVIZ JÓZSEF, HENCZ PÉTER:
B-csoportú Streptococcus szepszis tüdőelváltozásának röntgenképe

Roentgen morphology of pulmonar changes in group B Streptococcus sepsis
Magyar Radiológia 61, 69-72, 1987.(Hungarian)

Retrospective study of 248 chest radiograms of newborns with B group Streptococcal infection is presented. On 21 of 24 septic patients the positive haemoculture proved the infection as well. The most characteristic radiological findings are: fine, granular densities, air bronchogram and cardiomegaly. According to the investigation the pleural effusion is not a characteristic finding.

GÉZA ÁDÁM, FERENC JOÓ, PÉTER TEMESVÁRI, ERNŐ DUX, PÉTER SZERDAHELYI: Effects of acute hypoxia on the adenylate cyclase and Evans blue transport of brain microvessels
Neurochem.Int. 4, 529-532, 1987.(English)

Kinetic parameters of the albumin transport were measured during and after an acute hypoxic insult evoked in newborn piglets by experimental bilateral pneumothorax. Adenylate cyclase activity was determined in the cerebral microvessels isolated by ultracentrifugation from different stages of brain damage.

A decrease of the adenylate cyclase activity was observed in the cerebral microvessels of animals with acute hypoxic condition. However, the adenylate cyclase activity was found to be increased significantly in the microvessels during recirculation.

The activation of adenylate cyclase in the microvessel wall may be of pathogenetic importance in the development of vasogenic brain oedema.

BITTERA ISTVÁN, YVES BATAILLE, JEAN BOUSQUET, FRANCOIS B. MICHEL:
Rhinothermometria alkalmazhatósága rhinitis allergicában szenvedő gyermekeknél

Use of rhinothermometry with children suffering from allergic rhinitis

Orv.Hetil. 128, 509-511, 1987.(Hungarian)

A method based on the measurement of thermic changes on the nasal mucosa (rhinothermometry) is described. The authors' examinations show that rhinothermometry is suitable for the objective demonstration of temperature rise due to allergic inflammation in allergic rhinitis as in comparison with the control group the endonasal temperature is significantly higher in persons suffering from allergic rhinitis. The local temperature was found to return to normal parallel with the passing off of the seasonal inflammation of allergic origin of the nasal mucosa. The authors wish to use the method for the follow-up of the disease course, for determination of the severity of the illness, for the objective evaluation of pharmacological examinations and specific nasal provocation.

BODA DOMOKOS: Gyermekgyógyászati klinikai farmakológia
(Módszertani levél)
Orv.Hetil. 128, 2375-2376, 1987.(Hungarian)

BODA DOMOKOS, BARTYIK KATALIN, SZŰTS PÉTER: Egy éves folyamatos varicella-ellenes passzív védelem cytostatikus és immunszuppressziv kezelés alatt álló gyermekeken

One-year continuous passive immunization against varicella of children receiving cytostatic and immunosuppressive therapy
Gyermekgyógyászat 38, 129-135, 1987.(Hungarian)

In 54 children with negative varicella history and negative anti-varicella antibodies receiving immunosuppressive therapy, authors performed continuous varicella prevention during a period of one year. The children were administered every 6 weeks im. Varicellon injections, an immunoglobulin prepared from the serum of healthy donors containing high titer anti-varicella antibodies. Antibody concentration was measured by means of ELISA. From the 54 cases varicella exposition was known in 18 patients. Mild varicella developed in 12 children. Authors concluded that this form of passive immunization was an effective method in the prevention of the high-risk manifestation of the disease, however secures only partly prevention of varicella. Active immunization during the remission period and passive immunization until remission occurs may be considered to be more efficacious.

BODA DOMOKOS, GYŐRY ISTVÁN, PASEK BÉLA: Malformációs szindrómák számítógéppel segített diagnosztikája

Diagnostics of malformation syndromes using an available computer program

Orv.Hetil. 128, 717-720, 1987.(Hungarian)

Increased attention to the malformation syndromatology is motivated by the importance of accurate diagnosis and its necessity in genetic counselling. Given the great number of malformation syndromes, it is logical to make use of computers in their differential diagnostics. The aim of our present examinations was to assess the benefit that an experienced pediatrician can obtain from an available program. The "Syndrome Program" of R. Winter and M. Baraitser was applied. The diagnose of 100 different syndromes were controled. The method applied yielded very good results.

BURG KORNÉL, ENDREFFY EMŐKE, BEREK IMRE, GYURKOVITS KÁLMÁN, LÁSZLÓ ARANKA, PETRI ILDIKÓ, KAISER GABRIELLA, RASKÓ ISTVÁN:

Cystikus fibrosis diagnosztikája DNS restrikciós fragmenthossz polymorphizmus alapján

Diagnosis of CF on the basis of DNA polymorphism

Orv.Hetil. 128, 2571-2575, 1987.(Hungarian)

Through the collaboration between the Biological Research

Center of the Hungarian Academy of Sciences and the various Departments of the University Medical School in Szeged, the one of the first Hungarian organisation has been created for the diagnosis of CF through examination of DNA polymorphism. The available gene tests have been used to begin familial studies and a report is presented on the first of these, which immediately proved informative. This has provided the most up-to-date and exact method of prenatal CF diagnosis for practical application. In this preliminary publication arousing the interest of those interested in CF care, it is stressed that the reported procedure is suitable for antenatal diagnosis only in families where there is a living homozygous patient.

DOBOS ÉVA, TÚRI SÁNDOR, FÜZESI KRISTÓF, BEVIZ JÓZSEF:

A diuresis renographia szerepe obstruktív és nem obstruktív veseüregrendszer tágulatok elkülönítésében

Diuresis renography for the differentiation of obstructive and non-obstructive dilatation of the urinary tract

Gyermekgyógyászat 38, 462-471, 1987.(Hungarian)

Authors report on diuresis renography according to O'Reilly et al. performed in 60 children with diseases of the urinary tract. The confirmed dilatation in 74 kidneys was due to the obstruction of the urinary tract in 31 cases. A non-obstructive reason has been found in 43 cases. The results with diuresis

renography were compared with i.v. urography, micturition cystourethrography, ultrasound and operation findings. The method was found advantageous for the differentiation of obstructive and non-obstructive pyeloureteral stenosis. The technique is simple, radiation exposure has been lower than with other radiological procedures. The main advantage was the rapid detection to acute total urinary obstruction and of a secondary stenosis in the postoperative period. Based on the experiences authors recommend the widespreas use of the method.

E. DUX, P. TEMESVÁRI, P. SZERDAHELYI, Á. NAGY, J. KOVÁCS, F.JOÓ:
Protective effect of entihistamines on cerebral oedema induced by experimental pneumothorax in newborn piglets
Neuroscience 22, 317-321, 1987.(English)

As a consequence of general hypoxaemia evoked experimentally by bilateral pneumothorax, brain oedema of vasogenic type developed in newborn piglets after 4 h survival. Histamine receptor antagonists, mepyramine (H_1-receptor blocker), metiamide, cimetidine and ranitidine (H_2-receptor antagonists) were administered either intraperitoneally or intrathecally to check to what extent the formation of brain oedema could be reduced. Mepyramine and ranitidine decreased the accumulation of water, sodium and albumin in the parietal cortex. By measuring the concentration of histamine, the presence of a histamine pool was demonstrated in the cerebral microvessels.

The results suggest that histamine, if released upon hypoxic injury from the microvascular store, can take an important part in the development of vasogenic brain oedema.

FORGÁCS ERIKA, SALGÓ LÁSZLÓ, HENCZ PÉTER, DEÁK GYÖRGY:
Vérképelváltozások jelentősége az újszülöttkori sepsis diagnosztikájában

Significance of blood count alterations in the diagnosis of neonatal sepsis

Orv.Hetil. 128, 683-685, 1987.(Hungarian)

Alterations of the blood count observable in neonatal sepsis have been studied. On the basis of Manroe's criteria comparing 5 hematological parameters the results confirmed the diagnosis of sepsis in 92% of 53 cases. Within these the Immaturus/Total neutrophilic granulocyte count quotient was in itself the most frequent pathognostic sign. Careful evaluation of the blood count of neonates provides besides other methods important evidence for early recognition of sepsis.

KATONA MÁRTA, KERTÉSZ ERZSÉBET, TEKULICS PÉTER: Mitrális prolapsus előfordulása gyermekkorban

Mitra valve prolapse in childhood

Gyermekgyógyászat 38, 97-103, 1987.(Hungarian)

Authors report on their diagnostic and therapeutic experiences with mitral valve prolapse in children. In most of the cases it is a harmless disease, which requires no treatment. In addition to auscultation echocardiography will be helpful in early diagnosis. Rhythm disorders, being the leading complaints, readily respond to adrenergic beta blocking agents. The importance of the prevention of endocarditis has been emphasized.

ARAINKA LÁSZLÓ, GABRIELLA KAISER, MÁRTA KATONA, ERZSÉBET KERTÉSZ: HLA investigations in cardiomyopathies

Acta Paed.Hung. 28, 107-112, 1987.(English)

Typization of HLA A, B and C antigens of peripheral lymphocytes was performed in 14 patients suffering from cardiomyopathy and in 10 family members from 10 families. Among the antigens of locus A, the most frequent were the subgroups of HLA A9 (A23 and A24) in 7/14, and those of HLA A10 (A25 and A26) in 3/14; frequent antigens of locus B were the types B5, B7, B12 and B35. In 2 of 10 families the cardiomyopathy was transmitted by autosomal dominant genes, while the other cardiomyopathy cases were sporadic.

The HLA B8 antigen was not observed in any case of cardiomyopathy.

ARAINKA LÁSZLÓ, SAROLTA KARCSÚ, ZOLTÁN HAVASS: Ultrastructural study of peripheral lymphocytes and polymorphonuclear leukocytes in children with lysosomal enzymopathies and hyperlipoproteinemia

Acta Paed.Hung. 28, 163-173, 1987.(English)

On the basis of electronmicroscopic examinations of the peripheral lymphocytes and polymorphonuclear leukocytes (PMNL) in mucopolysaccharidosis of types I and II in Gaucher and Niemen-Pick diseases, in metachromatic leukodystrophy and in hyperlipoproteinemia, the ultrastructural characteristics are described.

Pathological finding with vacuoles formations were observed

in Gaucher disease and in metachromatic leukodystrophy against the preliminary literature.

The ultrastructural pathological changes are reported from the first ultrastructural PMNL examinations in hyperlipoproteinemias.

Electronmicroscopic analysis of the leukocytes is considered to give information equivalent in value to that from liver biopsy studies, but is advantageous in view of its non-invasive nature.

ARANKA LÁSZLÓ, ILDIKÓ PETRI, KÁLMÁN GYURKOVITS: Spontaneous and stimulated lymphocyte transformation test in homozygous children with cystic fibrosis
Acta Paed.Hung. 28, 101-105, 1987.(English)

Spontaneous and non-specific mitogenic stimulated lymphocyte transformation tests of cellular immune function were carried out. The phytohaemagglutinin, concanavalin A and pokeweed mitogen stimulated lymphocyte transformation was significantly diminished in the group of cystic fibrosis (CF) homozygotes as compared to the controls, as an indication of the impaired reactivity of the T-lymphocytes. The spontaneous phytohaemagglutin stimulated lymphocyte transformation ratio was diminished, too.

ARANKA LÁSZLÓ, I. SOHÁR, K. GYURKOVITS: Activity of the lysosomal cysteine proteinases (cathepsin B,H,L) and a metalloproteinase (EP-7-ase) in the

serum of cystic fibrosis homozygous children
Acta Paed.Hung. 28, 175-178, 1987.(English)

Lysosomal cysteine proteinase (cathepsin B,H,L) and metalloproteinase (MMP-7-ase) activities were measured from serum of 19 cystic fibrosis (CF) homozygotes and of 13 healthy children, as control group.

The activity of cathepsin B and H significantly increased in the CF-group.

J. SALLAI, S. TÚRI, G. FALKAY: The effect of E.coli infection on the prostaglandin synthesizing capacity of postobstructive rat kidney
Int.Urol.Nephrol. 19, 27-32, 1987.(English)

The PGE_2, PGI_2, $PGF_{2\ alpha}$ and T_xA_2 synthesizing activities were studied in an isolated microsomal fraction of rat kidney after temporary, unilateral ureter obstruction and E.coli infection. In the early phase of regeneration the synthesis of vasodilatory PGI_2 was increased, whereas that of vasoconstrictory $PGF_{2\ alpha}$ was decreased. An increased PGE_2 synthesizing activity was observed when renal obstruction was associated with infection. The role of these changes in regenerating the haemodynamics and function of postobstructive kidney is discussed.

A. SELYPES, ARANKA LÁSZLÓ: A new translocation t(1;4;11) in congenital acute nonlymphocytic leukemia

(acute myeloblastic leukemia)

Hum.Genet. 76, 106-108, 1987.(English)

A new translocation t(1;11;4) (1pter→ 1p32::1q23 → 11q13::4p16 → 4qter) was found in the peripheral blood of a patient with congenital acute myeloblastic laeukemia (ANL). It was concluded that this translocation may represent a new mutation, which caused the leukemia with very high leukocytosis, hepatosplenomegaly, leukemic infiltration of the majority of the organs, and a very poor prognosis.

SZABÓ IDA, GYURKOVITS KÁLMÁN, SALGÓ LÁSZLÓ: Széklet kimotripszin meghatározás gyermekkori exokrin pancreas elégtelenség diagnosztikájában

Fecal chymotripsine determination in the diagnosis of exocrine pancreas failure in childhood

Gyermekgyógyászat 38, 44-50, 1987.(Hungarian)

A review of the hitherto used functional tests in the diagnosis of exocrine pancreas failure have been presented. On the basis of literary data and personal results authors consider fecal chymotripsine determination to be a specific, sensitive, rapid, readily tolerated method suitable for screening tests of exocrine pancreas failure, as well as for the follow-up therapy.

L. SZTRIHA, F. JOÓ, L. DUX, ZSUZSANNA BÖTI: Effects of systemic kainic acid administration on regional Na^+, K^+-ATPase activity in rat brain
J.Neurochem. 49, 83-87, 1987.(English)

Changes in the activity of Na^+, K^+-ATPase and in the water, Na^+, and K^+ levels in the parietal cortex, hippocampus, and thalamus were investigated in rats 1, 3, 6, and 24 h following systemic kainic acid injection. An increase in Na^+, K^+-ATPase activity was observed in all three regions 3 h after the treatment, with a subsequent decrease in enzyme activity. The elevation in Na^+, K^+-ATPase activity was accompanied by an increase in the Na^+ content and a decrease in the K^+ content. These changes are presumed to occur because of repeated discharges an excessive prolonged depolarization in response to kainic acid. The decreases in Na^+, K^+-ATPase activity 6 and 24 h following kainic acid treatment coincide with neuropathological damage and edema formation, mainly in the hippocampus and thalamus.

LÁSZLÓ SZTRIHA, FERENC JOÓ, PÉTER SZERDAHELYI: Histamine H_2-receptors participate in the formation of brain edema induced by kainic acid in rat thalamus
Neuroscience Letters 75, 334-338, 1987.(Engl.)

At 4 h after the intraperitoneal administration of kainic acid in a dose of 12 mg/kg, Evans blue extravasation was observed preferentially in the thalamus, accompanied by increases in the

water and sodium contents and by a decrease in the potassium content. Subcutaneous pretreatment with a histamine H_2-receptor blocking agent, ranitidine, in a dose of 5 mg/kg given 2 h before and at the time of kainic acid injection, partially decreased the edema formation in the thalamus. It is assumed that repetitive discharges evoked by the kainic acid result in the thalamus in an excessive release of histamine from internal (mast cell and neuronal) sources and that this leads to the activation of H_2-receptor-coupled adenylate cyclase in the brain microvessels and to the induction of brain edema.

TEKULICS PÉTER: Coarctatio aortae az újszülött és csecsemőkorban

Coarctation of the aorta in newborns and infants

Card.Hung. 16, 323-345, 1987. (Hungarian)

Operative correction of coarctation of aorta in newborns and infants is discussed, based on data in literature as well as on experiences in many patients treated by the author. Opinions of the author can be summarized as follows:

1. Effective and safe treatment of coarctation of the aorta, causing severe congestive heart failure immediately after birth already and appearing frequently with other congenital cardiac malformations is surgical correction in this early age.

2. The aim of preoperative treatment is to prepare the patient for the operative intervention and not to postpone operation.

3. Preoperative intensive treatment has an important role in the improvement of operative results.

4. Surgical technique should be based on the anatomical situation.

5. Re-coarctation is more frequent following surgical correction in newborns that after surgical intervention later, however, this relatively more frequent incidence cannot justify the postponement of operation.

6. In case of ventricular septal defect in combination with coarctation of aorta, surgical stenosis of the pulmonary artery is indicated just in special cases. If possible, the defect should primarily be closed.

7. Early recognition of potential late complications makes very important the regular control, follow-up study of the patient. Exercise investigations have an important role in the recognition of hypertonia disease and re-coarctation.

8. Late hypertension is less frequent in those cases who were operated in newborn-age and infancy than in those, operated later.

9. The indication of elective surgical intervention is the diagnosis itself. Young age is not a contraindication even in the so-called "pure" coarctations either.

TEKULICS PÉTER, KERTÉSZ ERZSÉBET, KATONA MÁRTA, KOVÁCS GÁBOR:

Ischaemiás gerincvelő sérülések a coarctatio aortae korrekciós műtétei során

Ischaemic spinal cord lesions in the course of correction operations of coarctation of the aorta

Card.Hung. 16, 279-283, 1987.(Hungarian)

Paraplegia is one of the most severe - and if it happens, generally final - complication of the operative treatment of the coarctation of the aorta. It is caused by hypoxic laesion of the lower thoracic and lumbal part of the spinal cord during clamping of the aorta. Final paraplegia was observed in two out of 69 children, operated in the Cardiac Surgery Department of the Szeged University Medical School, while plegia was just transient in one case. Reviewing their own cases the authors are discussing data of the available literature. They are outlining those protective means with which this severe complication could be avoided or minimized.

ZOLTÁN TOLDI, ERZSÉBET KERTÉSZ, EMŐKE ENDREFFY: Sodium and potassium concentrations in red blood cells and plasma in children with congenital heart defect

Acta Paed.Hung. 28, 83-92, 1987.(English)

The sodium and potassium concentrations of the red blood cells and plasma were investigated in 93 children with cardiac disease, most of them with congenital heart defect, and in 48 healthy children of the same age. The red blood cell sodium and potassium concentrations were constant within a narrow range in normal subjects, but varied profoundly in pathological conditions. Digitalis treatment caused RBC Na^+ and plasma K^+ levels to increase and the RBC K^+ level to decrease by blocking the Na^+-K^+ pump. The highest

RBC Na^+ concentration was observed in critically ill patients with congestive heart failure treated with digoxin. An augmented RBC sodium value was found in heart malformations with left to right shunt and in congestive cardiomyopathy that was not treated, whereas in patients with right to left shunt lower RBC sodium, higher RBC potassium and plasma potassium values were registered without any treatment. In cases of hyperkinetic circulation without any congenital heart defect the value of RBC sodium was definitely low. A low sodium and a high potassium level of the RBC were found after total correcting heart surgery. It is concluded that measurement if changes in sodium and potassium concentrations of the red blood cells is not a reliable method for assessment of the efficacy of digitalis treatment. The results point to the accompanying phenomena at a cellular level in heart disease.

TÚRI SÁNDOR, HASZON IBOLYA, BODROGI TIBOR, VRANEK IBOLYA:

Plazmaferezis és immunszuppresszív kezelés hatása SLE-ben a humorális immunrendszerre és a prostacyclin anyagcserére

Effect of plasmapheresis and immunosuppressive therapy on the humoral immune system and prostacycline metabolism in SLE

Gyermekgyógyászat 38, 218-226, 1987.(Hungarian)

Authors report on their experiences with plasmapheresis + Prednisolone + Leukeran therapy in a patient with SLE associated to

nephrosis syndrome. 8 plasmapheresis treatments and 3 months of continuous immunosuppression resulted in a clinical asymptomatic state. Immunological examinations (LE-cells, antinuclear factor, anti-DNA, circulating immunocomplexes, serum C3 complement concentration) showed normal values. One year after plasmapheresis and Leukeran treatment, as well as maintenance therapy with Prednisolone total remission has been present. Previously, the prostacycline (PGI_2) stimulating activity in plasma has been low, a prostaglandin antagonistic activity against PGI_2 in plasma has been observed. On the effect of plasmapheresis the prostacycline antagonistic activity was eliminated. 10 months after remission prostacycline stimulating activity was found to be identical with that in controls, the antagonistic activity was not to be demonstrated. The results confirmed the defect of PGI_2 metabolism in SLE, as well as the favourable effect of plasmapheresis and immunosuppressive therapy.

TÚRI SÁNDOR, MAGYARI MÁRTA, CSALÁNOSINÉ NÉMETH MÁRTA:

A prosztaciklin-szerű aktivitást befolyásoló plazma faktorok vizsgálata diabeteses microangiopathiában

Plasma factors influencing prostacyclin-like activity in patients with diabetic microangiopathy

Orv.Hetil. 128, 1311-1315, 1987.(Hungarian)

Plasma factors influencing PGI_2-like activity in 19 patients

with diabetes mellitus (Dm) and 17 controls were studied comparing with the signes of retinal and glomerular angiopathy. Plasma PGI_2 supporting activity (PSA) was lower in 15 Dm cases than in the controls. Inhibitory activity against PGI_2 production was detected in 6 cases. In the case of more serious retinopathy associated with glomerulopathy a significantly lower level of PSA was observed then in patients with slight retinopathy without glomerular diseases. Plasma concentration of total- and LDL--cholesterol was significantly higher and the level of HDL-cholesterol was lower than in the controls. There was a positive correlation between PSA and HDL-cholesterol values and a negative correlation between PSA and LDL-cholesterol levels, which refers to an inhibitory effect of LDL and a protective role of HDL in the PGI_2 synthesis.

VÁRKONYI ÁGNES, BODA MÁRTA, SZELECZKI TERÉZ, ENDREFFY EMŐKE:
Lehelet H_2 próba pontosabb értékelhetősége a CO_2 tartalom egyidejű meghatározásával

More exact evaluation of the H_2 breath test by simultaneous determination of CO_2 content
Gyermekgyógyászat 38, 347-349, 1987.(Hungarian)

During H_2 breath tests also the CO_2 content of the samples was determined and, thereby, the H_2 values obtained were corrected. Using this correction positive curves were obtained in 43 cases out of the 136 tests meanwhile without the correction 18 of these positive results would have erroneously thought to be

negative. The authors suggest that in order to eliminate the error arising from the difficulties of sample collection the H_2 values of expired air samples should be corrected to the alveolar CO_2 content.

1988

JUBILEUMI TUDOMÁNYOS ÜLÉS: A Gyermekgyógyászati Klinika főbb törekvései Boda Domokos professzor 25 éves szolgálata alatt

JUBILEE SCIENTIFIC MEETING: Major trends of the Paediatric Department during the 25 years' service of Prof. D. Boda

Introduction by Domokos Boda

Short communications (presented):

ALTORJAY ISTVÁN: Az általános gyermekgyógyászati háttér haszna a gyermeksebészetben és viszont

Use of general paediatrics as the background of paediatric surgery and vice versa
Gyermekgyógyászat 39, 276-278, 1988.(Hungarian)

ECK ERNA: PO_2 monitorizálás hatása a neonatológiai gyakorlatra

Effect of PO_2 monitoring on the practice in neonatology
Gyermekgyógyászat 39, 308, 1988.(Hungarian)

GYURKOVITS KÁLMÁN: Mucoviscidosis (CF) előfordulása és a gondozási hálózat kiépítése Magyarországon

Incidence of mucoviscidosis (CF) and development of a network for its care in Hungary
Gyermekgyógyászat 39, 283-285, 1988.(Hungarian)

KERTÉSZ ERZSÉBET: Cardiológiai betegek ellátása az észleléstől a szívműtétig

Care of cardiological patients from the discovery to the heart surgery
Gyermekgyógyászat 39, 287-289, 1988.(Hungarian)

LÁSZLÓ ARANKA: A géndiagnosztika révén várható perspektívák a klinikumban

Clinical perspectives of gene diagnostics
Gyermekgyógyászat 39, 315-317, 1988.(Hungarian)

NÉMETH ILONA: Allopurinol vérszintmeghatározás kidolgozása révén adódó klinikai farmakológiai programok

Programs in clinical pharmacology by means of elaborating the determination of Allopurinol blood level
Gyermekgyógyászat 39, 304-307, 1988.(Hungarian)

SOLTYSIAK JANINA, HAVASS ZOLTÁN: Felnőtté vált phenilketonuriás PKU-s gondozottak állapota

State of grown up patients cared for phenyketonuria

Gyermekgyógyászat 39, 299-301, 1988.(Hungarian)

SZŰTS PÉTER, HAVASS ZOLTÁN: Hypothyreosis szűrővizsgálatok hatása a klinikumra

Efficiency of hypothyreosis screening in clinical medicine

Gyermekgyógyászat 39, 302-303, 1988.(Hungarian)

TEKULICS PÉTER: Aorta lefogást követő ischaemiás gerincvelő-károsodások vizsgálata állatkísérletes modelleken

Study of ischaemic spine lesions following clamping of the aorta in experimental animal models

Gyermekgyógyászat 39, 296-298, 1988.(Hungarian)

TÚRI SÁNDOR, BODROGI TIBOR: Haemodialysis, plasmapheresis, haemofiltratios kezeléssel szerzett tapasztalataink gyermeknephrológiai kórképekben

Our experiences with haemodialysis, plasmapheresis and haemofiltration treatment in paediatric nephrological diseases
Gyermekgyógyászat 39, 291-294, 1988.(Hungarian)

VIRÁG ISTVÁN: Koordinált onko-haematológiai ellátás a gyermekgyógyászatban

Co-ordinated onco-haematological care in paediatrics
Gyermekgyógyászat 39, 281-282, 1988.(Hungarian)

ALTORJAY ISTVÁN: A szegedi gyermeksebészeti osztály elmúlt húsz éve

The past twenty years of the Paediatric Surgery Department in Szeged
Magyar Sebészet 41, 175-182, 1988.(Hungarian)

BODA DOMOKOS: A gyermekgyógyászat új feladatai a ma követelményei között

New tasks of paediatrics among the demands of today
Orv.Hetil. 129, 1299-1303, 1988.(Hungarian)

In developed countries - in addition to the general progress of clinical medicine - significant changes have taken place in the hygienic conditions of children as well as in their system of health service. Infant mortality has decreased spectacularly. Alas, parallel with it, birth rate has also declined considerably. In addition to the task of the equally important hospital treatment of acute patients, paediatric activity based on new principles concerning out-patients has increased. In spite of this, the expenses connected to paediatric health service have not decreased, moreover, they have increased all over the world. The intensive care of acute patients is henceforward a great financial burden. New-type out-patient medical attendance is not simply a clinical outpatient service. Not only because the patients - at least periodically - have to be treated as in-patients but because their attendance requires well equipped high-standard hospital background with various specialized teams having retained their contact with the whole of the profession. For all this, the whole system of paediatric medical attendance and within this especially the network of relevant institutions (children's hospitals, children's wards) has to be modernized.

In this country, the condition of the wards for paediatric in-patients reflect - in their majority - the emergency of bygone days when the main task was to assure as many beds as possible for children, especially infants living in bad hygienic conditions, neglected and having an unfavourable social background. This demand, however, ceased about twenty years ago. Thus beds serving this purpose have become superfluous while at the same time important new tasks and aims cannot be fulfilled. Only by utilizing the given possibilities in a

better and more serviceable way by assuring the financial resources available even so far for paediatric medical attendance in an unchanged way, considerable progress and development can be achieved even without further expenses. Considering the health service of the future generation it is of crucual importance that the organizational renovation of paediatric medical attendance adjusted to the new tasks should be realized as soon as possible.

BODA MÁRTA, NÉMETH ILONA, SZELECZKI TERÉZ, VÁRKONYI ÁGNES:

A vörösvértest glutation tartalmának, stabilitásának és a hemoglobin oxidációs származékainak vizsgálata coeliakiás és tejallergiás betegekben

Studies on the glutathion content and stability of erythrocytes, as well as the oxidation derivatives of hemoglobin in children with celiakia and milk allergy

Gyermekgyógyászat 39, 428-435, 1988.(Hungarian)

Authors compared the glutathion metabolism of erythrocytes in 5 children with milk allergy and 11 with celiakia during gluten containing and gluten-free diet, resp., with the metabolism in 11 children with catarrh of the respiratory tract and iron deficiency anemia and 26 healthy controls. As compared to the healthy controls the reduced form of glutathion content of erythrocytes in celiakia was found to be significantly increased,

whilst the oxidized form of glutathion was explicitely reduced. An important difference of the oxidized form of glutathion and the molar ratio of glutathion was observed in the group with catarrh of the respiratory tract and nutritional iron deficiency anemia. On the action of acetylphenylhydrazine decrease of the glutathion stability has been observed in children on gluten containing diet and milk allergy, as well as the increase of the oxidation products of the unstable hemoglobin. Both alterations normalized on the effect of diet. Based on the mentioned observations authors point to the reduced protective mechanism in oxidant stress of the erythrocytes of patients with celiakia and milk allergy on gluten containing diet.

BITTERA ISTVÁN, PAIKAY GYÖRGY, ECK ERNA, KOLTAI MÁTYÁS, GYURKOVITS KÁLMÁN: Légúti allergiás gyermekek lymphocyta beta--adrenerg receptor vizsgálata

Beta-adrenergic receptors of lymphocytes from children with respiratory allergic diseases

Orv.Hetil. 129, 1861-1865, 1988.(Hungarian)

The beta-adrenergic receptors of the lymphocytes were examined by means of ^{125}I-cyanopindolol in children with bronchial asthma (n=16) or seasonal allergic rhinitis (n=8) and in normal controls (n=11). The number of beta-adrenergic receptors was significantly decreased in the asthmatic group (858±488/ /lymphocyte) relative to the controls (1564±983/lymphocyte). Children with allergic rhinitis showed a slightly higher mean

value (1891±1501/lymphocyte) than the group of healthy controls. The bronchial hyperreactivity to histamine was tested by capnographical analysis in 21 of the 24 allergic children. The result was 16 positive versus 5 negative. In this respect there was no difference between the histamine-negative and positive children as concerns their numbers of lymphocyte beta-adrenergic receptors. Neither was there a correlation between the number of beta--adrenergic receptor of the lymphocytes and the serum IgE concentration of the allergic children. The decrease in the number of lymphocyte beta-adrenerg receptors in asthmatic children corresponds well with the theory of Szentiványi. The individual antiasthmatic medical treatment may be influenced by further analysis of the changes in the beta-adrenergic receptors.

ISTVÁN BITTERA, KÁLMÁN GYURKOVITS, GYÖRGY FALKAY, ERNA ECK, MÁTYÁS KOLTAY: Beta-adrenergic receptors of lymphocytes in children with allergic respiratory diseases
Pediatr.Pulmonol. 5, 69-73, 1988.(English)

The beta-adrenergic receptor binding sites on peripheral lymphocytes in children with bronchial asthma (n=16) and seasonal allergic rhinitis (n=8) were examined in comparison with normal controls (n=18) by means of ^{125}I-cyanopindolol. The number of beta-adrenergic receptors was significantly lower in the asthmatic group (858±460/lymphocyte) than in the controls (1564±983/lymphocyte). The value (1891±1502/lymphocyte) in children with allergic rhinitis was slightly higher than that in healthy controls. Of the 24 patients suffering from allergic diseases of the lower or upper airways, the

bronchial histamine provocation test was performed in 21; 16 gave positive results, while 5 were negative. No difference in beta-adrenergic receptor count was found between the histamine--positive and negative patients. Neither was there any correlation between the number of beta-adrenergic receptors and the high (16/24) and low (8/24) serum IgE concentrations found in allergic patients. The significant decrease in beta-adrenergic receptor count in asthmatic children lends support to Szentiványi's concept. Further qualitative and quantitative analysis of lymphocyte beta-adrenergic receptors may provide an individual approach to the treatment of bronchial asthma with beta-sympathomimetic drugs.

ISTVÁN BITTERA, KÁLMÁN GYURKOVITS, MIKLÓS DRASKÓCZY, GYÖRGY FALKAY, ERNA ECK, MÁTYÁS KOLTAI: Which children with allergic rhinitis will become asthmatic? Does a change in the beta-adrenergic receptor system play a role?

Eur.Resp.J. 1, 206s, 1988.(English)

The beta-adrenergic receptor binding sites on peripheral lymphocytes in children with allergic rhinitis (n=8) were examined in comparison with normal controls (n=18) by means of ^{125}I--cyanopindolol. Children with allergic rhinitis showed a value (1891±1502/lymphocyte) slightly higher than that of the healthy controls (1564±983/lymphocyte). There was no difference between the rhinitis and control groups as concerns the beta-adrenergic receptor affinity of the lymphocytes. 30-80% of children with

hay fever can be expected to manifest bronchial asthma later. A positive result was given by 7/8 histamine provocation tests, indicating the existence of latent bronchial asthma. A further possibility of differentiation is expected from determination of the beta-adrenergic receptor system. It is assumed that bronchial asthma will develop early primariliy in those children with allergic rhinitis whose lymphocyte beta-receptor count is below the normal or subsequently displays a decreasing tendency. Follow-up studies are in progress.

BITTERA ISTVÁN, KADOCSA EDIT: A specifikus nasalis provokáció (SNP) eredményének értékelése rhinothermometriával

Rhinothermometric evaluation of the specific nasal provocation results

Gyermekgyógyászat 39, 476-481, 1988.(Hungarian)

The specific nasal provocation with Bencard's allergen solution has been performed on 40 children with allergic rhinitis and 10 controls. The provocation test was estimated on the basis of symptoms and rhinothermometry. It has been found that rhinothermometry was a suitable means for the objective evaluation of the specific nasal provocation. There was a good correlation between the severity of the symptoms and the degree of the endonasal temperature increase. Rhinothermometry is a simple, non-invasive method and requires only a minor cooperation from the child.

BITTERA ISTVÁN, KADOCSA EDIT, JEAN BOUSQUET: Beclomethasone orrspray hatásának ellenőrzése rhinothermometriával szénanáthás gyermekekben

Controlling the effect of beclomethasone nasal spray by rhinothermometry at children suffering from hay fever

Orv.Hetil. 129, 231-235, 1988.(Hungarian)

The authors survey the change of endonasal temperature of 40 children suffering from seasonal allergic rhinitis during a four week treatment period with beclomethasone dipropionate (BDA). At 72% of their patients, in addition to considerable symptomatic improvement, a significant decrease of temperature in the nasal mucosa was measured. In patients at whome the medicament proved to be ineffective, the endonasal temperature showed no change as compared to the initial values. Based on their results it can be stated that the relative change in the temperature of the nasal mucosa is a sensitive indicator of the clinical state of those suffering from allergic rhinitis. Rhinothermometry is considered useful in following the therapeutic effectivity of a medicament at such patients in an objective way.

ISTVÁN BITTERA, EDIT KADOCSA, JEAN BOUSQUET: Rhinothermometry: A mple and objective method to follow-up the effectiveness of childhood hay fever therapy

Allergy 43, Suppl.No.7, p.114, 1988.(English)

A simple and objective method, rhinothermometry, is presented for monitoring of the effectiveness of childhood hay fever therapy. Ten children (average age 10.3 yr) with active hay fever were treated with antihistamine (Zaditen^{R} or Fenistil-retard^{R}) for the first week, and then with beclomethasone dipropionic acid (BDA) nasal spray for another four weeks.

The effectiveness of the therapy was evaluated via symptom scores and rhinothermometry. Endonasal temperature was measured weekly with a Bosch Thermotest.

The clinical symptoms and the endonasal temperature were unchanged after the one-week antihistamine therapy. In contrast BDA spray administration resulted in a considerable improvement of the symptoms and a significant decrease in the endonasal temperature in 7 of the 10 patients after merely one week of BDA spray treatment. It is concluded that rhinothermometry is a convenient and objective method to follow the effectiveness of childhood hay fever therapy. The BDA spray proved more efficient than the antihistamine in the fast treatment of active hay fever.

BOGDÁNY ANIKÓ: Szövődményes enterocolitis necrotisansos betegeink tanulságai

Complications in necrotic enterocolitis

Gyermekgyógyászat 39, 493-497, 1988.(Hungarian)

Author reports on the retrospective analysis of newborns having died at the intensive unit due to necrotic enterocolitis

during the past ten years. Following viewpoints have been studied: etiology, clinical symptoms, diagnostic and therapeutic potentialities. Based on the evaluation a method has been established to improve treatment. The early operative removal of the gangrenous intestinal part, possibly befor perforation, has been considered essential. The fact that exitus in necrotic enterocolitis occurs earlier (due to septicemia) than perforation, has to be considered. The method will have a favourable influence on perinatal mortality, too.

BURG KORNÉL, ENDREFFY EMŐKE, GYURKOVITS KÁLMÁN, RASKÓ ISTVÁN, LÁSZLÓ ARANKA: Restrikciós fragmenthossz polymorphismus vizsgálatok alkalmazása cystikus fibrosis esetén

Restriction fragment length polymorphism examinations in cystic fibrosis

Gyermekgyógyászat 39, 449-451, 1988. (Hungarian)

Authors report on the follow-up of cystic fibrosis by means of restriction fragment length polymorphism examinations in the affected families. Examples for the evaluation of informative, partially informative, and non-informative polymorphism have been presented.

MIKLÓS DRASKÓCZY, KÁLMÁN GYURKOVITS, ISTVÁN BITTERA: Bronchial hyperreactivity in children with asthmatiform bronchitis: Investigations by capnographic on-line analysis

Eur.Resp.J. 1, 316s, 1988.(English)

Bronchial hyperreactivity of various kinds was investigated in pediatric patients suffering from recurrent asthmatiform bronchitis. The patients were divided into 2 groups on the basis of the presence or absence of an IgE-mediated allergic pathomechanism, as demonstrated by in vitro (PRIST, RAST, blood eosinophilic cell count) and in vivo (Prick test) data. Bronchial challenge was performed in turn with histamine, acetylcholine and adenosine in continuous aerosol form and with free running for 6 minutes. The pulmonary function before, during and after the chemical challenges and also before and after free running was continuously monitored by capnographic curve on-line analysis. This method is especially suitable for investigations in children, because it is simple, sensitive enough for the detection of even a subclinical bronchospasm, and needs no active collaboration from the child, and hence it can be used even in children under the age of 6 years. The correlations were analysed between the allergic or non-allergic pathomechanism and the results of the different bronchial challenges. Features of the pathomechanisms and the clinical relevance of the results will be discussed.

ENDREFFY EMŐKE, TÚRI SÁNDOR, LÁSZIK ZOLTÁN, BERECZKY CSABA, KÁSA KATALIN: Szöveti oxidációs hatás vizsgálata nephrotoxious (anti-GBM) nephritises patkányokban

Effect of tissue oxidation in nephrotic (anti-GBM) nephritic rats

Gyermekgyógyászat 39, 419-427, 1988.(Hungarian)

Authors studied creatinine clearance, proteinuria, renal GSH, protein-SH, 6-keto-PGI_1 alpha TxB_2, as well as histological changes in vitamin E-treated and non-treated experimental nephrotoxic (anti-GBM) nephritis at various dates following the administration of the anti-GBM antibody. After 24 hours creatinine clearance was significantly higher in the vitamin E-treated group as compared to the untreated animals. On day 14 proteinuria was lower after vitamin E treatment, but the difference of clearance values were not anymore significant. Renal tissue protein SH value measured on day 1 and 14 was significantly higher in the vitamin E-treated group and the histological changes were also moderate. In addition to the temporary and mild increase of PGI_2 alpha TxB_2 value showed an additional increase and was found to be significantly higher by the 14th day in the kidneys of the untreated rats as compared to the group treated with vitamin E. Renal GSH and protein-SH values suggest that free oxygen radicals are released in nephrotoxic nephritis, which can be influenced by vitamin E. At the same time histological findings were more favourable, thromboxane increase less explicit, and functional impairment in the first 24 hours also more moderate.

FÜZESI KRISTÓF, TORNYOS SZABOLCS, NÉMETH PÉTER: Bronchológiai ténykedésünk során szerzett tapasztalataink

Experiences with bronchological examinations

Gyermekgyógyászat 39, 343-348, 1988.(Hungarian)

Bronchoscopic examinations were performed more frequently in infants with stridor, recurrent bronchitis, and pneumonia. In patients, treated for mucoviscidosis and suspect of bronchiectasia bronchography has been carried out. For the estimation of regional lung function bronchocapnography, elaborated by authors, has been used. By means of the method additional informations can be obtained of the bronchoscopic findings on anatomical abnormalities.

GYURKOVITS KÁLMÁN, DRASKÓCZY MIKLÓS, DEMÉNÉ RÁPÓ JOLÁN, ZSIDAY-GALGÓCZY KÁROLY: Kapnográfiás légzésfunkciós módszer alkalmazása gyermekkori légzőrendszeri betegségek diagnosztikájában

Capnographic respiratory function test in the diagnosis of respiratory diseases of childhood

Gyermekgyógyászat 39, 332-342, 1988.(Hungarian)

Authors report on their method of capnographic respiratory function test used since 20 years, as well as on its advantages. During the 8 years of on-line data processing appr. 10.000 examinations were performed. An objective quantitative system of analysis of provocation tests has been elaborated. Based on pharmacological and clinical results the multi-purpose of the method has been emphasized.

GYURKOVITS KÁLMÁN, PAPP ANDREA IV. OH., BITTERA ISTVÁN, RÁPÓ JOLÁN: Kapnográfiával kontrollált adenozin terhelés gyermekkori krónikus légúti betegségekben

Capnography controlled adenosine loading in chronic airway infections in childhood

Orv.Hetil. 129, 827-830, 1988.(Hungarian)

Authors gave 0.1% adenosine solution throught inhalation for a maximum of 15 minutes to 20 children with asthma bronchiale, to 14 with chronic bronchitis and to 13 with rhinitis allergica, all of whom reacted with bronchus spasm to airway histamine provocation. Respiratory function was controlled with capnography. The result was positive in 15 asthmatic patients, 5.5 minutes on the average and in 10 rhinitis allergica patients after a mean of 5 minutes. Among the children with chronic disease only 2 responded to adenosine, both after 13 inhalations. By comparing the results of adenosine provocation with results of serum IgE levels and skin tests, they found a close relationship between the allergic state and positivity of adenosine load. Throught exact mechanism of the specific bronchoconstrictive effect of adenosine is yet unknown, these first examinations show that applying adenosine provocation, allergic and inflammatory reactions in children with positive bronchus response to histamine provocation, can be differentiated with great probability.

HAVASS ZOLTÁN, SOLTYSIAK JANINA, SZÜTS PÉTER, LÁSZLÓ ARANKA, GYURKOVITS KÁLMÁN: Az újszülöttkori tömegszűrővizsgálatok 20 éve Magyarországon

20 years of mass screening of newborns in Hungary

Gyermekgyógyászat 39, 372-378, 1988.(Hungarian)

Authors report on the mass screening of inborn errors of metabolism in newborns introduced before 20 years in Hungary. The central laboratory examines the blood dried on filter paper of newborns from 11 counties. Examinations of phenylketonuria were started in 1968 and are performed since 1975 together with galactosaemia based on obligatory regulation by the Ministry of Health. From the 1.192.563 phenylketonuria examinations 148 phenylketonuric and 40 hyperphenylalaninemic cases were detected and treated, respectively. In one case phenylketonuria with biopterine deficiency has been diagnosed, in which a defect of dihydrobiopterine synthase has been confirmed. From 941.720 examinations galactosaemia was diagnosed in 16 cases - 11 with transferase and 5 with kinase defect. In 1985 mass screening of hypothyreosis has been introduced, being also obligatory. From the 194.293 examinations 37 hypothyrotic patients were found. Regional screening of mucoviscidosis and histidinemia including a minor number of the population have also been carried out. Finally authors discuss diseases - adrenogenital hyperplasia, biotinidase defect - which require in future the introduction of mass screening.

LÁSZLÓ ARANKA, KARSAI TAMÁS, VÁRKONYI ÁGNES: Congenitalis hyperammoniaemia (ornitin-transzkarbamiláz) defectus specifikus enzimdiagnosztikája, a genotípusok igazolása

Specific enzyme diagnosis, verification of genotypes in congenital hyperammoniaemia (ornithine--transcarbamylase) defect

Gyermekgyógyászat 39, 327-331, 1988.(Hungarian)

Authors report on a OTC heterozygous hyperammonemic little girl diagnosed at the age of 20 months and the enzyme studies of urea-cycle (carbamoyl phosphate synthase, ornithine transcarbamylase (OTC), arginine succinate synthase, arginine succinate lyase, arginase) in the parents. OTC activity in the liver biopsy of the infant amounted to 62.9 per cent, the OTC activity in the leukocyte homogenate of the mother to 78.5 per cent, in that of the father to 102 per cent. Enzyme in the heterozygous infant showed a distinct activity decrease to ornithine and carbamoyl phosphate substrate. The infant proved to be symptomatic OTC heterozygote, the mother asymptomatic heterozygote.

ARANKA LÁSZLÓ, B. MATKOVICS, L. SZABÓ: Lipid peroxidation and antioxidant enzymes in erythrocytes from 21-trisomic Down's patients

Oxygen free radicals and the tissue injury.
Eds.:B.Matkovics,D.Boda,H.Kalász
Akadémiai Kiadó,Bp.,1988. - pp. 175-179. (English)

Investigations were made of the lipid peroxidation in the plasma and the erythrocytes and the activities of antioxidant enzymes in the erythrocytes from 21-trisomic Down's cases. An enhanced lipid peroxidation process and compensatory elevated activities of antioxidant enzymes (copper, zinc superoxide dismutase = Cu, Zn-SOD, and glutathione peroxidase) were proved. The catalase activity of the red blood cells was significantly lower in the Down's cases. The data contradict the gene dosage effect hypothesis of Cu, Zn-SOD.

ILONA NÉMETH, DOMOKOS BODA: Oxidized and reduced glutathione levels in blood samples from premature infants with RDS and critically ill children
Oxygen free radicals and the tissue injury.
Eds.:B.Matkovics,D.Boda,H.Kalász
Akadémiai Kiadó,Bp.,1988. pp.269-277.(English)

Both the oxidized and the total glutathione concentrations of the plasma and the whole blood were determined with a sensitive method, using glutathione reductase. No consequent change in either the total or the oxidized glutathion level of the plasma was found in patients under intensive care or in hypoxic premature infants. Pronounced increases in the concentration of oxidized glutathione and in the ratio of oxidized/reduced glutathione in the whole blood were measured during oxygen therapy in the course of perinatal hypoxia and in intensive care patients suffering from acute metabolic disorders. It is suggested that the concentration of oxidized glutathione or the ratio of

oxidized/reduced glutathione for the whole blood is an appropriate index of oxidative stress.

NÉMETH PÉTER, FÜZESI KRISTÓF: A gyermekkori poplitealis cysta sclerotizáló kezelése

Sclerosing treatment of popliteal cysts in childhood

Gyermekgyógyászat 39, 239-241, 1988. (Hungarian)

At the Department of Surgery and Orthopedics of the Pediatric Department at Szeged altogether 31 children were treated for popliteal cysts between the 1980 and 1985. Instead of operation authors applied with success the sclerosing treatment.

ISTVÁN SOHÁR, ARANKA LÁSZLÓ, KATHERINA GAAL, FERENC MECHLER: Cysteine and metalloproteinase activities in serum of Duchenne muscular dystrophic genotypes

Biol.Chem.Hoppe-Seyler 369, 277-279, 1988. (English)

Lysosomal cysteine proteinase (cathepsin B,H, and L) and MMP-7ase muscle metalloproteinase activites were measured in serum from Duchenne muscular dystrophic male patients and their mothers as gene-carriers. The activity of cathepsin H significantly increased in the Duchenne muscular dystrophic (DMD)--hemizygotes group and in the group of DMD heterozygotes. Sig-

nificant positive correlation was found between the activity of serum creatine kinase (which previously has been proven to be a marker of muscular dystrophy) and of cathepsin L in the DMD-hemizygotes group. Furthermore, correlations were found between the activity of creatine kinase and MMP-7ase or between activity creatine kinase and cathepsin H in the DMD heterozygotes.

The changes in activity of proteolytic enzymes in serum of dystrophic patients can be explained by the elevated proteolytic enzyme activity in dystrophic muscle observed previously.

SÓLYOM ENIKŐ, GYURKOVITS KÁLMÁN, MADÁCSY LÁSZLÓ, ILYÉS ISTVÁN, ZSIROS JÓZSEF, FÁBIÁN KATALIN: Csökkent glukóz tolerancia cystás fibrosisban és a kezelés lehetősége

Reduced glucose tolerance in cystic fibrosis and treatment possibilities

Gyermekgyógyászat 39, 135-140, 1988. (Hungarian)

Authors examined on a patient in the prepubertal period with cystic fibrosis the glucose tolerance and confirmed its 45 per cent reduction. At the same time insulopenia has been present. Administration of zinc improved glucose tolerance by increasing insulin bindig of erythrocytes without affecting serum insulin content. To reduce diabetes risk glucose tolerance should be controlled yearly from the age of 9 years. Occasional zinc supplementation and decrease crystalloid carbohydrate consumption has been recommended in pathological cases.

SZABÓ MIHÁLY, ALTORJAY ISTVÁN, BEVIZ JÓZSEF, FÜZESI KRISTÓF, TÚRI SÁNDOR: A gyermekkori külső vizeleteltérítésekről (supravesicalis diversio)

External (supravesical) diverging of urine in childhood

Gyermekgyógyászat 39, 349-371, 1988.(Hungarian)

Authors discuss in detail, based on personal cases, methods rarely used in our country. Temporary and final diverging of urine, principles and operation technical problems of their elimination, as well as factors improving or deteriorating the state of the affected kidney have been presented. From the 39 children temporary diverging was performed in 21 patients, for the most part during the past 7 years. Advantages of the temporary diverging in the final solution of early detected abnormalities of the urinary tract in infancy were confirmed. Authors used the final diverging of urine for the improvement of severely impaired infants to maintain renal function. In addition to the examination methods used in general authors try to estimate more accurately the possible maintenance of the affected kidney in children having been subjected to urine diverging, by means of introducing new methods.

SZŰTS PÉTER, SZIROVICZA ÉVA: A vörösvérsejtek adenozin deamináz és purin nukleozid foszforiláz aktivitásának in vivo és in vitro változása CPD vérstabilizátor hatására

In vivo and in vitro changes of the adenosine deaminase and purine nucleoside phosphorylase activity of erythrocytes on the effect of CPD blood stabilizer

Gyermekgyógyászat 39, 443-448, 1988. (Hungarian)

The important decrease of ADA and PNP activity was observed during exchange transfusion and isovolemic hemodilution. The phenomenon was to be induced in vitro during incubation with the PCD blood stabilizer. The action is reversible, persist in vitro 48 hours, is dose-dependent, and is originated by the citric acid component of CPD. It is not demonstrable after 24 hours in vivo. It is important to consider the phenomenon when studying enzyme activity.

TEKULICS PÉTER: Gyermekkori mérgezések sajátosságai

The characteristics of intoxications

OTKI Toxikológiai Jegyzet 1988. (Hungarian)

Various intoxications in infancy, babyhood and childhood are relatively frequent. According to literary data and the authors own observations, 75% of them require only thorough examination and close observation. In 20%, after the immediate removal of toxic materials, the recovery of the patient is rather quick. Effective, intensive treatment lasting for several days is needed only in 5% of the cases. In the first place, the author, by drawing attention to some general prob-

lems based on the 10 years' patient material of the Intensive Unit at the Department of Paediatrics of the Szent-Györgyi University Medical School of Szeged (Hungary), gives a survey of the most frequent intoxications of that age. He reports on the clinical course, the available diagnostic tests, the most important differential diagnostic criteria and the tasks to be done during the treatment of unconscious patients being seriously ill.

In connection with intoxications in infancy and childhood, he stresses the importance of prevention, the informative instructions of the parents, their responsibility and briefly summarizes the problems concerning the responsibility of the whole society in case of childhood intoxication.

TEKULICS PÉTER: Kísérleti modell az alsó gerincvelőszakasz hypoxiás károsodásának vizsgálatára

Experimental model for investigating the hypoxic damage of the inferior spinal segment

Kísérletes Orvostudomány 40, 313-317, 1988. (Hungarian)

In course of surgical operations performed on the thoracal or abdominal aortae, the paraplegia of the lower extremities due to ischaemic or hypoxic damage of the myelon is a severe complication. To investigate this pathologic process, newborn piglets were used as experimental models for monitoring the progress of the injury damage. Our considerations were based

on the crossed extensor reflex being a fundamental neurophysiological phenomenon referring to the hypoxic damage of the spinal cord. By properly chosen current intensity, the left hindleg of animals with compressed aorta was stimulated. After a certain time, in our experiment 36,5 minutes (SD=2,3), no reaction surpassing the stimulus threshold was observed in the contralateral limb referring to the hypoxic injury of the spinal cord.

The so-called ED^{50} value was introduced, the concept of 50% effective ischaemic damaging dosis. This is the period when at the registration phase of a certain time unit, the number of the signs is halved comapred to the initial value. In the knowledge of all this, there is a possibility for examining the protective or potential effect of substances influencing eventual spinal damage.

TEKULICS PÉTER, NÉMETH ILONA, KOVÁCS JÓZSEF, SZ.VARGA ILONA:
Oxidációs stresszhatás vizsgálata átmeneti aortaleszorítás okozta hypoxiában, újszülött malacokban

The investigation of oxidation stress effect in transient hypoxia caused by compression of the aorta in newborn piglets

Kísérletes Orvostudomány 40, 280-288, 1988. (Hungarian)

The authors have elaborated an experimental model on newborn piglets to investigate tissular hypoxia and reperfusion induced

by temporary compression of the thoracal aorta. By compressing the thoracal aorta for 30 minutes, in addition to 10± 2 Hgmm blood pressure values, paraplegia developed in all the animals. In the pathomechanism of paraplegias, the presence, role and damaging effect of active oxygen radicals were examined in the tissues and in the blood by measuring reduced and oxidized glutathione concentrations, the activity of antioxidant enzymes (superoxide dysmutase, catalase, glutathione peroxidase) and the concentration of lipide peroxides. In course of the model experiment, the oxidized glutathione concentration of the whole blood increased slightly after 30 minutes' aorta compression and the increase could be definitely observed 30 minutes after the beginning of reperfusion but after 40 minutes it could not be measured any more. The change in the molar rate of glutathiones in the blood could be measured before there was any change iether in the activity of the antioxidant enzymes of the red blood cells or the lipideperoxide concentration. Similarly, in the tissues of the spinal cord, after a reperfusion of 4 hours, there was no considerable change in the activity of tissular antioxidant enzymes or lipide-peroxide concentration, but the presence of active oxygen radicals could be proved due to the marked decrease of reduced glutathione and the increase in the rate of oxidized glutathione. After this, the authors relate the supposed mechnism in the genesis of active oxygen radicals, their accidental susceptibility to influence and raise the possibility of the fact that one of the fundamental causes in the development of paraplegia observed in the lower half of the body may be susceptibility to the oxidative effects of the tissues of the spinal cord which may be associated to the glutathione metabolism of this important organ.

TEKULICS PÉTER, RAKONCZAY ZOLTÁN, DOBÓ ENDRE, KÁSA PÉTER, KOVÁCS JÓZSEF, GULYA KÁROLY: A kolinerg enzimrendszer elemeinek változása ischaemia hatására újszülött malacok lumbális gerincvelő szakaszában

Changes of the cholinerg enzyme system on the effect of ischemia in the lumbar segment of the spinal marrow of newborn piglets

Gyermekgyógyászat 39, 406-411, 1988. (Hungarian)

Authors report on the experimental study of paraplegia of the lower extremities, the severe potential complication of the descending aorta-operation. The hypoxia dependent changes of the elements of the cholinerg enzyme system was measured in the lumbar segment of the spinal marrow of newborn piglets. During the 4-hour reperfusion following the 36 min. compression of the thoracic aorta a significant decrease of AChE and ChA activities and practically unchanged BuChE values were measured as compared to controls. Behaviour of AChE has been confirmed by histochemistry. The changed activity of the elements of the enzyme system is probably consequence of the reduced protein synthesis and not a direct enzymeoriented effect of ischemia.

TEMESVÁRI PÉTER, KOVÁCS JÓZSEF: A vér-agy gát kinyílása heveny légmellbetegség során újszülött sertésekné

Opening of the blood-brain barrier in acute pneumothorax of newborn piglets

Gyermekgyógyászat 39, 412-418, 1988. (Hungarian)

The cardiovascular and metabolic shock of newborns is frequently accompanied by a microvascular-dependent impairment of the central nervous system - the cerebral edema. To study the activation of pathological processes of the blood-brain barrier arising at the time authors performed thorough the open parietal cranial window in vivo observations of the cerebral microvessels on newborn piglets (n=6) by means of the fluorescence method during the artificially induced bilateral pneumothorax. The previously impermeable microvascular system of the piarachnoid opened at the deepest stage of the severe cardiovascular (hypertension after prior hypotension, bradycardia) and metabolic (acidosis, hypoxemia, hypercapnia) shock on the effect of intravenous Na^+-fluorescein. During the development of cerebral edema the low molecular substance (376 ms) having been localized previously only intravascularly entered, along the small veins (under 80 μm) the parenchyma of the central nervous system. At that phase of the artificially induced pathological state the earlier dilatation of the small cerebral vessels (50-200 μm) changed to vasoconstriction, circulation slowed down and formation of sludge occurred. Prior to the artificially induced pneumothorax the blood-brain barrier features did not differ from those of control animals (n=4). In cases of severe cardiovascular and metabolic shock of newborns the blood-brain barrier becomes permeable to sodium, which is important with regard to the development of associated cerebral edema. The mentioned findings should be considered in clinical treatment.

PÉTER TEMESVÁRI, JÓZSEF KOVÁCS: Selective opening of the blood--brain barrier in newborn piglets with experimental pneumothorax

Neuroscience Letters 93, 38-43, 1988.(English)

Pial-arachnoidal microvessels (40-210 μm) were studied by fluorescent microscopy in anaesthetized, immobilized and ventilated newborn piglets in the course of bilateral experimental pneumothorax (BEP; n=10) using the open cranial window technique. Na^+-fluorescein and fluorescein iso thiocyanate (FITC)-dextran (mol.wt. 40,000 and 70,000 Da) administered i.v. served as blood--brain barrier (BBB) indicators. After gradual exhaustion of compensatory mechanisms a critical phase, characterized by severe acidosis, bradycardia, arterial hypotension following hypertension and arterial hypoxaemia ensued, with vasoconstriction following vasodilation. Moreover, progressive circulation disturbances, sludging and microthrombi formation occurred in small venules. Concomitantly, diffuse BBB opening for Na^+-fluorescein ensued in all piglets with BEP as shown by extended fluorescence in the brain tissue around the small venules (<80 μm); never observed for FITC-dextran and in the control animals (n=4) without BEP. In the acute phase of pneumothorax a selective opening of the BBB should be considered.

SÁNDOR TÚRI, MÁRTA MAGYARI, MÁRTA NÉMETH, CSABA BERECZKY: Plasma factors influencing prostacyclin-like activity in patients with diabetic microangiopathy

Prostaglandins Leukotrienes and Essential Fatty Acids 31, 107-111, 1988. (English)

Plasma factors influencing PGI_2-like activity in 19 patients with diabetes mellitus (Dm) and 17 controls were studied through a comparison with the signs of retinal and glomerular angiopathy. The plasma PGI_2 supporting activity (PSA) was lower in 15 Dm cases than in the controls. Inhibitory activity against PGI_2 production was detected in 6 patients. In the cases of more serious retinopathy associated with glomerulopathy, a significantly lower level of PSA was observed than in patients with mild retinopathy without glomerular diseases. The plasma concentrations of total and LDL-cholesterol were significantly higher, while the level of HDL-cholesterol was lower than in the controls. There was a positive correlation between PSA and HDL-cholesterol values and a negative correlation between PSA and LDL-cholesterol levels, which relates to an inhibitory effect of LDL and a protective role of HDL in PGI_2 synthesis.

SÁNDOR TÚRI, JUDIT NAGY, IBOLYA HASZON, MÁRTA NÉMETH, CSABA BERECZKY: Disturbances of lipoprotein and PGI_2 metabolism in IgA nephropathy and Henoch-Schönlein purpura In: Contr.Nephrol. Karger, Basel. 67, 37-43, 1988. (English)

TÚRI SÁNDOR, NAGY JUDIT, NÉMETH MÁRTA, TORDAY CSILLA, HAVASS ZOLTÁN, BERECZKY CSABA: Az érfali PGI_2-szerű aktivitást és a thrombocita ciklikus AMP tartalmát befolyásoló plazma faktorok IgA nephropathiában és Schönlein-Henoch purpurában

Plasma factors influencing platelet PGI_2-like activity and the cAMP content in IgA nephropathy and Schönlein-Henoch purpura

Gyermekgyógyászat 39, 396-405, 1988.(Hungarian)

Authors studied the effect of plasma on prostacycline activity (PGI_2) in 45 adult patients with IgA nephropathy, 18 children with Schönlein-Henoch purpura (in 8 cases associated nephrosis syndrome), and in 41 controls. Umbilical artery segments were used, the effect of plasma was studied by the platelet aggregation inhibition method. The values were found in both groups of disease to be significantly lower than in controls. The plasma of 23 from 30 IgA-nephropathy patients and of all the 10 purpura patients inhibited the PGI_2-like activity also on fresh umbilical artery segments. The plasma HDL-cholesterol concentration was significantly lower, LDL and total cholesterol content higher than in controls. After incubation of the plasma of 10 nephrotic patients and 10 controls the 6-keto-$PGF_{1\ alpha}$-content of the umbilical artery supernatant has been measured. After incubation with the plasma of the patients the values were found to be significantly lower as compared to the controls. Results of 6-keto-$PGF_{1\ alpha}$ and prostacycline activity showed a significant correlation. After incubation with the IgA nephrotic plasma the

the supernatant cAMP production in the arterial segments was significantly lower as compared to the incubation with the control plasma. The vascular PGI_2-defect might play a role in the pathogenesis of the IgA-nephropathy and the Schönlein-Henoch purpura due to the reduced cAMP production of platelets and the increased aggregation. HDL possibly exerts a protective action in the PGI_2 synthesis.

VÁRKONYI ÁGNES, GYURKOVITS KÁLMÁN, ZSIDAY-GALGÓCZY KÁROLY, BEVIZ JÓZSEF: Gastroesophagealis reflux (GOR) vizsgálata automatikus regisztrálási módszer segítségével krónikus, ill. recidiváló obstruktiv bronchitises (OB) csecsemőkben és kisdedekben

Automatic recording of gastro-esophageal reflux in chronic or recurrent obstructive bronchitis of small children

Gyermekgyógyászat 39, 471-475, 1988. (Hungarian)

Authors studied the occurrence and importance of gastro-esophageal reflux in chronic and recurrent obstructive bronchitis of small children. A method of computer analysis of the esophageal pH changes was used to establish the degree of reflux and was compared with the diagnostic value of the radiological reflux determination. The substantial role of gastro-esophageal reflux in obstructive bronchitis and the importance of its treatment have been emphasized.

ZOMBORI JÁNOS, LÁSZLÓ ARANKA: Laboratóriumi és morfológiai vizsgálatok II.b típusú hyperlipoproteinaemiás gyermekben

Laboratory and morphological examinations with a child suffering from type II.b hyperlipoproteinemia

Orv.Hetil. 129, 1539-1542, 1988.(Hungarian)

The case of a six and a half year old patient suffering from type II.b hyperlipoproteinemia is described. The diagnosis was made at the age of 3 on the basis of clinico-chemical and morphological examinations. The light- and electronmicroscopic findings of the liver biopsy are described in details; lipid drops surrounded by membrane in the hepatocytes, lipid drops and crystals surrounded by trilaminar membrane were found in the mesenchymal cells among the liver cells. The 2 cell types appear to store different lipids. Bone marrow cells and peripheral leukocytes (granulocytes and lymphocytes) store also lipids.