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ESOPHAGEAL MOTILITY(EM)IN BRAIN DAMAGED PATIENTS(PTS).

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Oropharyngeal Dysphagia(OPD)is a common feature in PTS with brain damage.We performed esophageal manometry in 13 PTS(mean age:11.3 months)with neurological handicaps ranging from spastic tetraparesis with severe brain atrophy to only moderate psychomotor mental retardation,in order to assess the role of the EM in the mechanism of the OPD.All 13 PTS complained of swallowing disorders and failure to thrive,10 also had vomiting and 9 had pulmonary aspiration, too.All 13 but one had Gastroesophageal Reflux(GER)and 8/10 esophagitis.In PTS with severe brain damage(9/13)esophageal manometry showed a marked Upper Esophageal Sphincter(UES)dysmotility(incomplete relaxation and/or incoordinated activity)and an abnormal motility of the proximal esophagus.Symptoms and EM abnormalities were persistent after cure of GER.In PTS with minor neurological signs(4/13)esophageal manometry showed a normal EM and less severe degrees of UES dysmotility.This latter defect and symptomatology were not persistent after 4-12 months follow-up.In conclusion:Difficulty in swallowing,aspiration of food materials and failure to thrive in some PTS with neurological impairement may be caused by disorders of UES and esophageal motility.

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OESOPHAGEAL TRANSIT-TIME USING 81m-Kr IN CHILDREN WITH CAUSTIC OESOPHAGITIS

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Radioactive scintiscanning using 81mKr (1), is a reliable method of measuring oesophageal transit-time with very low doses of irradiation due to the very short life of the tracer and is particularly suitable for repeated examinations in children.
We have observed 15 patients with severe caustic burns and long-term (up to 14 years) follow up is available for 12 of them. Severe grade III oesophagitis due to caustic compounds (usually following ingestion of strong alcali) frequently resulted in narrow strictures and rigidity of the oesophagus.
81mKr transit-time was used in all of them at several stages of the longstanding disease and served as criterium for assessing the development of the lesions and the loss of elasticity of the oesophageal wall as well as for monitoring medical or surgical treatment.
Results: no changes were observed in 3 children, improvement occurred in 7 and 2 extra cases were investigated only once.
Correlation with other techniques such as endoscopy and radiology, showed that 81mKr transit-time is more related to the functional status of the oesophagus than to the anatomical condition : one should use this non-invasive most accurate technique for follow-up of caustic oesophagitis.

(1) H.R. Han Paediatr. Radiology 15:161,1985

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LARGE DOSES OF DEXAMETHASONE FOR PREVENTION AND TRATMENT OF NARROW STRICTURES IN CAUSTIC OESOPHAGITIS

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Literature on treatment of oesophageal burns by caustic agents includes accidental ingestion in children and attempted suicide in adults but some controversy remains about the use of corticoids. Successful treatment with high doses of steroids has been experimented in cats (1), preventing development of oesophageal strictures. Good results were obtained with an indwelling large naso-gastric tube without steroid treatment (2).
Among a series of over 200 children who accidentally ingested caustic products, 15 presented with grade III oesophagitis at first endoscopy, following ingestion of strong alcali or acid. In the first 7 cases numerous dilatations were needed for treatment of narrow strictures. In 4 further cases the use of a large silastic naso-gastric tube reduced the number of dilatations needed. In 4 last cases the use of large doses of dexamethasone during 3 to 6 weeks either prevented the development of oesophageal strictures (2 cases) or improved the outcome of the disease (2 cases). Furthermore, this treatment was also effective in stabilizing the caliber of the oesophagus when used immediately after a dilatation in 4 cases of long-standing stenosis. Good functional results were confirmed by 81m-Kr scintiscanning oesophageal transit-time.
Conclusion: in our experience dexamethasone seems to be effective in the treatment of severe oesophageal burns by caustics. Discrepancies with other series might be due to 1) the very large doses we used and 2) smaller amounts of caustics ingested accidentally by children.

(1) A. Haller Pediatrics 34:236,1964
(2) N.M.Beukers et al. Annals of ORL 94:337,1985

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ISOLATION OF CAMPYLOBACTER PYLORIDIS IN CHRONIC GASTRITIS IN CHILDREN

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Isolation of campylobacter pyloridis (CP) from gastric mucosa and its association with gastritis and duodenal ulcers has been shown in adults (1). We have recently succeeded in isolating CP from gastric mucosal biopsies in children as well: biopsies are transported in a medium consisting of brain-heart infusion (Difco) + 8.25% yeast extract (Difco) + 10% horse serum, then mixed in a Sorvall mixing chamber and the suspensions obtained are inoculated on Skirrow's selective medium (Oxoid) and on a blood plate and incubated for 5 to 7 days at 37°. Suspected colonies are stained and the oxidase and urease test confirm CP.
Over the last ten years, more than 80 childen and teenagers with recurrent post-prandial epigastric pain presented with endoscopically and radiologically recognisable nodular pseudopolypoid pattern of the antrum associated, histologically, with moderate to severe inflammatory changes. Though cimetidine usually relieved pain, it failed in healing histological lesions.
CP was found, lately, in gastric biopsies of 5 children presenting with chronic pseudopolypoid gastritis. It was absent in biopsies of 14 other children without gastritis undergoing endoscopy. Following treatment with amoxycillin, CP disappeared from biopsy cultures and some histological improvement occurred.
Conclusions: 1) These preliminary results are the first report of isolation of CP in chronic gastritis in children 2) Whether CP is responsible for or only associated with the disease needs long term follow up.

(1) A.B. Price et al. Gut, 26: 1183, 1985

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COW'S MILK SPECIFIC ANTIBODIES, SERUM IMMUNOGLOBULINS COMPLEMENT FRACTIONS, LYMPHOCYTE SUBSETS AND STIMULATION OF LYMPHOCYTES IN COW'S MILK ALLERGY

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A cow's milk (CM) challenge test was done to 34 children aged from 3 to 51 months suspected to have CM allergy. Nineteen of them had clinical relapse during the CM challenge: 16 (84 %) showed cutaneous, 4 (21 %) gastrointestinal and 6 (32 %) respiratory manifestations. Fourteen showed immediate reaction within an hour of ingestion or skin contact with CM, in five the reaction took place later. Before and during the challenge test we measured serum levels of immunoglobulins G, A, M and E, complement fractions 3 and 4, of class specific cow's milk antibodies, numbers of lymphocyte subsets and the stimulation of lymphocytes in whole blood by photohemaagglutinin, concanavalin A and beta-lactoglobulin. Of the 19 patients with positive CM challenge, 11 (61 %) showed increased levels of CM specific IgE antibodies, and of the remaining 8, betalactoglobulin stimulation was positive in 5, in half the helper/suppressor ratio increased during the challenge and 3 had decreased serum level of C3. None of the laboratory methods used could alone discriminate between children who reacted to CM in challenge and who did not. The combination of increased level of CM specific IgE with decreased serum IgG and C3 gave the sensitivity of 83 % and specificity of 55 % to predict clinical reaction.

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HEREDITY IS THE STRONGEST DETERMINANT OF INFANTILE ATOPY; PROLONGED EXCLUSIVE BREAST FEEDING GIVES NO ADVANTAGE.

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We followed 183 infants for 2 years. A short breast feeding group (F3.5) (N=32) was fully weaned by age 3.5 months (median 70 days) while group BE9 (N=31) was exclusively breast fed for 9 months. We assessed heredity for atopy, infections, and duration of breast feeding as determinants of atopy. We saw an atopic manifestation during the 1st year of life in 14 infants. The parents reported atopy-like signs during the 2nd year in another 31 infants. Heredity was the most significant predictor of atopy (30 % of heredity + infants had atopy v. 18 % of heredity - infants, p=0.04). Other significant predictors were late exposure to cow-milk and frequent upper respiratory tract infections (URTI). The type of feeding associated with atopy particularly among the heredity - infants. Of them fewer infants had atopy in group F3.5 than in group BE9 (1/19 v. 5/18, p=0.06). Furthermore, atopic manifestations during the 1st year were less common in group F3.5 (independent of heredity) than in group BE9 (0/32 v. 5/31, p=0.02). The duration of breast feeding did not associate with the frequency of URTI. Diarrhoea during the 1st year was more common in group F3.5 than in group BE9. Prolongation of exclusive breast feeding from 2 to 9 months does not contribute to prevention of infantile atopy and respiratory tract infections.