Nitrazepam in Enuresis

SIR,—Nocturnal enuresis is a common paediatric problem causing much inconvenience to mother and child alike. Unfortunately this disorder is rather resistant to medication, and for practical reasons child psychiatric treatment is not always possible. Accordingly, a search for drugs which might have an effect on enuresis seemed called for.

In our unit for paediatric psychiatry a large clinical study of problems involved in enuresis, with complete urological, E.E.G., and psychosociological investigations, has been in progress for several years. It was decided to make use of these facilities in testing whether or not nitrazepam is effective in enuresis. This drug was originally intended as a sedative for children, but has later been largely used also to treat convulsions in infants and young children.

The pilot study was performed on 20 enuretic children of normal mental development and with no urological malformations. Nitrazepam was given for six weeks in oral doses of 2.5 mg to children aged 4-6 years and 5 mg in the age group 7-14 years. The higher dose in particular was found to have a significant effect on nocturnal primary enuresis when compared with a placebo. A double blind clinical trial of nitrazepam in childhood enuresis has been started, and the results will be reported and the neurophysiological aspects discussed in due course.—I am, etc.,

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Pre-peritoneal Prosthetic Herniorrhaphy

SIR,—I should like to give an interim report on experience with a pre-peritoneal prosthetic herniorrhaphy¹ over a three-year period. The technique has been described elsewhere.²

A total of 234 groin herniae in 214 patients have been operated upon; 20 had bilateral herniae. There were 217 inguinal herniae (70 direct, 147 indirect); 27 of these were recurrent and 4 were strangulated. Seventeen herniae were femoral, one of which was recurrent and three were strangulated. Five herniae were en glissade; five patients had accompanying umbilical hernia simultaneously repaired by upward extension of the mid-line incision; one of these patients had bilateral inguinal and an umbilical hernia repaired (a triple hernia repair) all through the same incision. The oldest patient operated upon and who also had a simultaneous prostatectomy was aged 95 years. In 4 patients permanent cure was not obtained. These patients were operated on early in the series at a time when the details of operative technique were being developed. It is hoped that with greater familiarity with the technique the ideal outcome may yet be attainable.

With this reservation experience with the operation over a three-year period has been favourable and enables some conclusions and observations to be made.

The same operation is applicable to all types of groin hernia and their complications. Operations on bilateral herniae are facilitated as the midline incision gives equal access to both sides. By virtue of the access

afforded relief of strangulated hernia and resection of nonviable gut when necessary is rendered easier. Operations for recurrent hernia are not bedevilled by the scar tissue of the previous standard operations. Sliding hernia (hernia en glissade) are appreciably easier to operate on by this approach. Sepsis and chronic sinus formation have not been a problem, and first intention healing has been the rule with few exceptions. In no instance has it been necessary to remove the Marlex mesh. Concomitant procedures such as prostatectomy and appendectomy can be carried out with confidence. The mid-line lower abdominal incision provides rapid access to the target area; misgivings about possible development of incisional hernia have proved unfounded, the wound being sutured with continuous monofilamentous nylon and the cut ends buried, for which manoeuvre a special instrument has been

devised available from Down Bros. Mayer and Phelps Ltd.

Postoperative management is directed to early ambulation and return to work. The patient gets out of bed as soon as he feels inclined to do so, usually the first postoperative day, and is allowed to go home if the home circumstances are favourable at any time after the second postoperative day, returning the following week to the out-patient clinic for removal of sutures.

Patients with sedentary occupations return to work on the average two weeks after the operation and manual workers in three weeks.—I am, etc.,

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1 Tinckler, L. F., *British Medical Journal*, 1968, 2, 832.

2 Tinckler, L. F., *Postgraduate Medical Journal*, 1969, 45, 664.

3 Gibbon, N., *British Medical Journal*, 1969, 1, 187.

Bone Density and Long-term Anticonvulsant Therapy

SIR,—Professor C. E. Dent and his colleagues (10 October 1970, p. 69) report the finding of osteomalacia in patients with epilepsy and suggest that enzyme induction caused by long-term anticonvulsant therapy increases the inactivation of vitamin D. Their data include biochemical studies and bone biopsies, but to the best of our knowledge no quantitative measurement of bone density in epileptic patients assessed by gamma-ray osteodensitometry has been published.

bone density expressed in arbitrary units. The results are shown in the Table.

In the group of epileptic patients the mean values of bone density units were significantly lower than in the two control groups. No significant difference was found between the psychiatric patients and the normal persons. Our preliminary findings of low bone density in patients receiving long-term anticonvulsant therapy indicates decreased bone mineralization in these patients and seems to

	Heel Scan	Elbow Scan	Average Age (yr)	No. of Patients
Epileptic patients	19.1 ± 3.5	15.0 ± 3.7	45.4	9
Psychiatric patients	31.0 ± 6.3	19.0 ± 2.6	47.4	10
Normal persons	27.4 ± 6.1	21.2 ± 4.3	44.0	22

The values are given as mean ± S.D. Epileptic patients compared to psychiatric patients: Heel P < 0.001, Elbow P < 0.02. All patients were women.

We have studied a group of epileptic patients treated 10 to 15 years with phenytoin, phenobarbitone, primidone, and carbamazepine. A control group of psychiatric patients resident in the same epileptic colony during the same period with equal food and vitamin supply treated with chlorpromazine and related drugs were also studied and compared with a group of normal persons. An ¹²⁵I source of gamma radiation (Studsvik, AB Atomenergi Sweden) was used for scanning of the right heel and elbow, and the

support the results of Professor Dent and his colleagues.—We are, etc.,

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Screening with Reagent Strips

SIR,—The use of laboratory testing to determine the presence of undiagnosed diseases in apparently healthy populations has been used increasingly in recent years in Europe and the U.S.A.¹ From the point of view of underdeveloped nations, many of the techniques are impracticable, as they involve expensive equipment and trained personnel. We have therefore conducted a pilot experiment to determine the value of commercially available laboratory reagent strips for urine analysis that are cheap to purchase and can be used by relatively untrained persons. The product used in the present study was Labstix (Ames Company), which has five tests on each strip: for pH, protein, glucose, ketones, and blood.

Two technicians visited 11 secondary

boarding schools in different areas of Zambia: Lusaka, Ndola, Luanshya, Chipata, Kariba, and the Western Province. In all, a total of 2,056 apparently healthy children were seen, aged between 12 and 20 years. A urine sample was obtained from each, and the reagent strip applied at once and read on the spot. The results of the survey are set out in the Table.

It will be seen that eight children had glycosuria, which in all cases was medium to heavy. In one child the glycosuria was accompanied by ketonuria. It is likely that all eight children have, or are developing, diabetes mellitus.

By far the commonest pathological finding was haematuria, often accompanied by proteinuria. In Central Africa the most likely