

Biochemical Response to a Chupatty-free Diet and to Resumption of Normal Diet in 10 Pakistani Immigrants with Late Rickets or Osteomalacia

	Serum Calcium (mg/100 ml) Mean \pm S.E.	Serum Inorganic Phosphorus (mg/100 ml) Mean \pm S.E.	Serum Alkaline Phosphatase (K.A.U./100 ml) Mean \pm S.E.
(1) Normal diet	8.41 \pm 0.14	3.36* \pm 0.26	35.9 \pm 3.49
(2) Chupatty-free diet for seven weeks ..	9.45 \pm 0.16	3.57 \pm 0.31	47.6 \pm 6.23
(3) Normal diet for three months	8.71 \pm 0.18	3.38 \pm 0.35	29.7 \pm 4.17

*P<0.05 (compare with period (2)). †P<0.01. ‡P<0.001.

which may occur if the diet is grossly deficient in calcium and vitamin D. Short-term balance studies may not reflect the real situation in communities affected by these conditions. The study of Nicolaysen and Njaa,¹⁰ which the authors quote, is at variance with other balance studies which indicate that dietary phytate may produce a marked deterioration in calcium balance,^{11,12} though it is clear that some adaptation may occur to a high phytate intake in time. Our own study, carried out on subjects who had been exposed to a high phytate intake for many years, would indicate that even maximal adaptation may be insufficient to prevent rickets and osteomalacia under certain circumstances.

The interrelationships of vitamin D deficiency and dietary phytate in the causation of Asiatic rickets and osteomalacia require further elucidation. It seems likely that a high phytate intake may produce rickets and osteomalacia only when both dietary and non-dietary sources of vitamin D are sub-optimal. As demonstrated by Lumb and others,¹³ this situation applies to most people in the U.K. The response of Asiatic rickets to vitamin D and the protective effect of vitamin D supplements may be due to the ability of cholecalciferol to stimulate intestinal phytase.¹⁴ In the interim it is of interest that our original group show significant falls in serum calcium and alkaline phosphatase levels three months after resuming their normal consumption of chupattys in June 1972. Serum inorganic phosphorus levels show a fall which does not reach statistical significance (see Table). These results, obtained after a summer in which Glasgow has enjoyed above-average hours of sunshine, strengthen the hypothesis that dietary phytate is important in the genesis of Asiatic rickets and osteomalacia.—We are, etc.,

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anaesthetic for burns dressings and now employ inhalation analgesia with sedative premedication.—We are, etc.,

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Ketamine and the Laryngeal Reflex

SIR,—Following our experience with ketamine as an anaesthetic agent for burns surgery¹ we started using this drug as an anaesthetic agent for burns dressing in young children. Inhalation analgesia with methoxyflurane had not been found satisfactory at Chepstow in this group of patients.²

It has always been our practice to starve patients before anaesthesia for burns surgery, even when ketamine was going to be employed, as it is never certain that these patients might not require conventional anaesthesia. We did not starve the children before giving them intramuscular ketamine for burns dressings, however, as these procedures may be frequent and adequate nutrition is essential for healing in burned patients.³ In 1971 Taylor and Towey⁴ published their report of an investigation in which contrast medium was placed on patients' tongues while they were anaesthetized with ketamine. Postoperative radiography showed that the contrast medium had been aspirated. We therefore considered it necessary to repeat this investigation on burned children in order to ascertain whether it was safe for them to be given intramuscular ketamine for subsequent burns dressings without preoperative starvation. Our dosage of ketamine was less than that used by Drs. Taylor and Towey.

Ten children between the ages of 5 months and 6 years were investigated while undergoing skin-grafting operations in the supine position. The patients were premedicated with oral atropine 0.6 mg and trimeprazine 2 mg/kg body weight. Children under the age of 2 years received atropine alone. Anaesthesia was induced and maintained with intramuscular ketamine; no other agent was used. An initial dose of 4 mg/kg was given to prepare the patient and a supplementary dose of 2 mg/kg was given before surgery was started. Further doses of 2 mg/kg were given intramuscularly as required. When anaesthesia was stabilized 2.0 ml of Dionosil (an oily suspension of propylidone) was placed at the back of the tongue. In order to reduce the exposure to radiation only one chest radiograph was taken at the end of the operation. In one 6-year-old child a bronchogram resulted, providing evidence that contrast medium had entered the lungs. The lung fields in all the other patients were clear, although contrast medium could be seen in either the oesophagus or stomach.

We realize the imperfection of this method of investigating the competence of the laryngeal reflex. The results may predict the behaviour of the larynx after simple regurgitation, but it is by no means certain that it establishes the pattern of events in the much more complex vomiting reflex. Nevertheless, we have ceased using ketamine as an

Poisoning Treatment Centres

SIR,—My colleague Dr. I. Oswald (18 November, p. 430) has drawn attention to that very important problem in evaluating a complex treatment—the need to determine precisely what the active components of the treatment experience are. Clinicians, myself no exception, are tempted to infer that the job they think they are doing is what helps the patient. Incidental factors may prove more important.

However, in suggesting other possible explanations for my finding that the repetition rate was much lower among parasuicides admitted to the Edinburgh Regional Poisoning Treatment Centre than among those not so admitted (4 November, p. 255), Dr. Oswald, like all good "Freudians" seems to want his cake and eat it! He avoids committing himself as to whether he expects those patients subjected to the consummatory climax of gastric lavage to be more or less likely to flirt with Thanatos again. Nine (53%) of the 17 patients who later repeated parasuicide had gastric lavage on their first admission to the centre compared with 71 (57%) of the 125 admitted patients who did not repeat. The difference is not significant and it must be concluded that this memorable experience did not deter or encourage further suicidal behaviour.

Dr. Oswald also asks whether continued psychiatric treatment after discharge from the hospital was related to prognosis. It appears not, because of the 17 repeaters, three (18%) had been referred for inpatient psychiatric care, eight (47%) were offered outpatient follow-up, and six (35%) received no further psychiatric help; the corresponding figures for non-repeaters were 21 (18%), 49 (43%), and 45 (39%).

Perhaps the calculated interventions of the psychiatrist are not the only important features of the treatment experience in the Edinburgh Poisoning Treatment Centre. Parasuicide is usually an appeal to key persons in the patient's social group to recognize and respond to his emotional needs. Maybe the whole turmoil of admission to hospital amplifies the cry for help and makes it more difficult for those key persons to ignore it.—I am, etc.,

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Colleagues in Africa

SIR,—As you have already commented on current difficulties in the health services in Uganda (4 November, p. 249), I should like to draw your attention to a similar situation