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Correspondents are urged to write briefly so that readers may be offered as wide a selection of letters as possible. So many are now being received that the omission of some is inevitable. Letters should be signed personally by all their authors.

Ulceration of Small Intestine and Slow-release Potassium Tablets

SIR,—We noted with interest the recent paper on oesophageal ulceration and stricture associated with Slow-K therapy by Drs. A. D. Howie and R. W. Strachan (26 April, p. 176), and a letter describing a case of mouth ulceration with slow-release potassium by Dr. B. R. McAvoxy (19 October 1974, p. 164). Because of the widely held view that Slow-K does not cause the small intestinal ulceration and stricture associated with other forms of potassium therapy, we should like to report two cases of small bowel ulceration and stricture in patients on Slow-K.

(1) A 73-year-old woman with a history of congestive cardiac failure had been treated for three months with digoxin, Lasix, and Slow-K. She was admitted with small bowel obstruction. At laparotomy an ulcer stricture of the terminal ileum was found and resected. The patient made a satisfactory recovery.

(2) A 65-year-old man with congestive cardiac failure after a myocardial infarct had been treated for four weeks with digoxin, Lasix, and Slow-K tablets. He was admitted with subacute intestinal obstruction, which subsequently became acute and required laparotomy. An ulcer stricture of the terminal ileum was found and resected, and the patient had an uneventful recovery.

The use of slow-release potassium tablets has been urged in the belief that it is the rapid release of potassium over a short segment of intestine, which is the factor precipitating mucosal ulceration and subsequent stricture formation. While this is undoubtedly true it must follow that the local concentration of potassium is the critical factor and that even the slow-release form, when held for any reason at one site, may reach a sufficient concentration to cause ulceration. As this is the third site of mucosal ulceration (mouth, oesophagus, and

now small intestine) to be reported in the *B.M.J.* in recent months it would seem that great care should be exercised in the prescription of slow-release potassium, and that patients on Slow-K should be watched for the symptoms of ulcer stricture.—We are, etc.,

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Computerized Tomography of Brain

SIR,—We note with interest the leading articles (10 May, pp. 295 and 300) "Non-invasive Investigations of the Brain" and "And Now the Whole Body." It has been our experience over the past two years with computerized tomography of the brain (E.M.I. scan) that this revolutionary technique has changed the pattern of radiological investigation and the clinical management of patients with neurological disorders. As a method of visualizing the brain and the pathological processes affecting it it is unparalleled by any other radiological method. Its non-invasive character, outpatient capability, and accurate demonstration of normal and abnormal tissues are indeed major diagnostic advantages.

Conventional neuroradiological procedures are now less often required, with consequent economy of inpatient facilities. Our experience in the department of neuro-radiology at the Manchester Royal Infirmary of the changing patterns of investigation for

space-occupying lesions is summarized in the table contrasting two equivalent time periods in 1972 and 1974. It is noteworthy that the total number of patients attending the department has increased by 50%.

	1974	1972
Computer tomography		
Inpatients	590	—
Outpatients	410	—
Angiography	259	318
C.S.F. pathway investigation	141	207
Isotope brain scan		
Inpatients	87	383
Outpatients	56	184
Totals { Inpatients ..	1077	863
Outpatients ..	466	184

In addition to these major advantages, however, it is important to stress the unique measuring capability of the equipment. Measurements recently carried out in our departments indicate that the method is much more sensitive to changes in tissue which accompany disease states than other conventional radiological techniques. Variations in density of one part in 1000 over a region of about 1 cm³ can be detected. Numerical display of data allows accurate measurement of x-ray absorption coefficients which are related to the mean electron density and atomic number of tissue. Changes of one part in 500 in the atomic number of tissue is just detectable for blocks of tissue 1 cm³. This change corresponds approximately to the difference in atomic number between intracellular and extracellular fluid. These changes are at present just within the limits of detection, though it may well prove possible in the future to detect changes in sodium-potassium flux.

A preliminary study has been undertaken exploiting the precision of the E.M.I. instrument in the quantification of bone mass and bone mineral concentration. Modification of the head device to obtain a cross-section of the wrist has enabled a reproducibility of 0.2% in bone mineral concentration of