The grooved jaws of the introducing forceps should be placed on the Stuke-on-Trent cannula about 3-4 mm from its expanded end (Fig.). After the cystic duct has been dissected clear of surrounding structures, a ligature is tied round it close to the gall bladder. The duct is incised immediately distal to this ligature, and may have to be dilated gently with a probe or small bougie before cannulation is attempted. Now the expanded instrument itself should be inserted into the duct. The cannula is secured in position with a second ligature drawn round the duct, and tightened just beyond the jaws of the forceps. The forceps can then be released, and withdrawn from the duct without fear of dislodging the cannula. The procedure of operative cholangiography is continued as described previously.1

The instrument is available from Down Bros. and Mayer and Phelps, Church Path, Mitcham, Surrey. My thanks are due to Mr. A. J. G. Percy, Home Sales Director of Down Bros.

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J. MCKENZIE BUCHANAN

North Staffs Hospital Centre, City General Hospital, Stoke-on-Trent


Normal Range for Serum Transaminase

Sir,—We were most distressed to read the letter by Professor D. N. Baron and others (4 September, p. 583), not only because of the misleading information therein but also the overt lack of appreciation of the limited validity of temperature correction factors. King1 has shown that since the optimal reactant concentrations for serum lactate dehydrogenase vary with temperature and the temperature–activity relationship alters with the optimal conditions, temperature correction factors are only valid over a narrow temperature range.

In the Boehringer Corporation transaminase kits the reactant concentrations have been increased in the “optimized” packs, and the typical effect of this on the temperature–activity relationship is illustrated in the Figure. This clearly demonstrates the greater thermostability of alanine transaminase and the thermal protection given by the increased concentration of substrate in the “optimized” assays. This in turn indicates that while the standard methods for both enzymes have reasonably similar conversion factors up to 40°C those for the “optimized” procedures differ from this and from each other. Although Professor Baron and colleagues do not state their method of conversion it can readily be seen that if the normal range for the standard assays were applied to the optimized procedures this would result in fictitiously low values for the latter, particularly in the case of aspartate transaminase.

Lymph Nodes and Gastric Cancer

Sir,—It is disappointing to see an inaccurate belief perpetuated in the B.M.J., especially in a leading article (p. 67). I would therefore like to challenge a statement made by the anonymous author of “Diagnosis of Gastric Cancer.” It reads

metastasis [to lymph nodes] is associated with a greatly decreased life expectancy,

and though this is prefaced by a vague reference to the “extent of involvement of the lymph nodes,” the inference is that patients with any lymph nodes involved have a prognosis totally different from those with all nodes free of metastases. Pygott’s figures1 which were quoted from other surveys, put patients into two categories, lymph glands free (LG—ve) and glands invaded (LG—ve). Many other writers have assumed that this generalization is adequate. Hawley, Westerholm, and Morson2 have basically used the same approach though they do report some modification and their results showed that patients with few metastatic nodes did better than those with many secondaries. Pack and McNeel3, however, showed that 30.8% of their five-year survivors had histological evidence of lymphatic metastases at the time of operation. This LG —ve: LG —ve division may therefore be an oversimplification.

From the results of my own study it was apparent that gastric cancer patients whose metastases involved less than half of the regional lymph nodes achieved a survival rate that was statistically no different from those with all nodes free. Full details were available from the records of 165 patients suffering from gastric carcinoma, including surgical findings, histology of primary and lymph nodes, and five-year progress post-operatively. I divided the series into three groups: those who had no histological evidence of nodal metastases (OX), those with less than half of the lymph nodes invaded (LTH), and those with more than half of the nodes containing metastases (MTH). The five-year survival rates for different combinations of these groups were:

- OX: 51% survival 5 years
- OX + LTH: 46% survived 5 years
- LTH: 41% survival 5 years
- LTH + MTH: 35% survival 5 years
- MTH: 8% survival 5 years

Statistically (using χ2 test and Yates’s correction) the difference between OX and LTH is highly significant (P<0.001). This evidence supports the hypothesis that survival is related to the proportion of local nodes involved, and is not a function of the absolute presence or absence of secondary spread to lymph nodes.

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1 Pygott’s, A., Pathology, 1969, 381.
nodes. This may well link up with the work done by Hawley et al. and Paile suggesting that some patients may do better because their cellular immune mechanisms are putting up resistance to the primary, and they may do better if palpable metastases have reached a few local nodes.

This is an important problem, because the surgeon at laparotomy who finds some palpable nodes near a resectable gastric tumour may well decide against radical local dissection on the basis of an apparently hopeless prognosis ("glandular metastases"). My study showed where surgeons reported "malignant glands present", the histological findings in no less than 1 : 3 patients of OX or LTH status (and therefore a better prognosis). In other words, there are two reasons to continue with radical lymphatic surgery, even with palpable nodes. Firstly, they may be benign, and secondly, they may represent the minimal invasion and quite good prognosis situation. For those who can stand awful doggerel this may be summed up:

"All that bulge are not malignant,
Even be some so, do not pyne."

May I also point out the fact that early diagnosis of gastric cancer, and greatly improved results in treatment, have been taken a stage further by the use of gastric cytology, with or without fibrescope-collecting methods.

SIR,—In "Today's Drugs" (17 July, p. 174) it is mentioned that it is doubtful if psychosis can be accepted as a toxic effect of dapsone. W. H. Jopling, to whom this statement is attributed, was not in on the early treatment with dapsone in which high dosage was given to large numbers. In 1950 I was in charge of Oji River Leprosorium, Nigeria. We treated all 15,000 patients with hydrocortisone oil and scarcely ever had any mental trouble. Within six months we changed the 1,800 settlement and 8,000 of the clinic patients to dapsone. Having been warned by the initial toxicity in a much smaller series (under Dr. J. Lowe at Uzuakoli receiving a dose of 300 mg/day (1,800 mg/wk), we adopted a dose of 200 mg/day (1,200 mg/wk) in the settlement and 400 mg twice weekly in the clinics. Our idea of the lower dose in the clinics together with a slower induction was to minimize the serious reactions where fewer and less skilled staff were able to cope with the consequences.

We also induced treatment more slowly than at Uzuakoli (12 weeks instead of six weeks to reach the maximum), but still we were faced with many cases of acute psychosis with violence, delusions, and visual and auditory hallucinations together with two suicides within the first few months. Most of these were in the settlement where we had a higher dose and more rapid induction, so we soon changed our treatment to twice weekly, lowered the maximum, and induced more slowly. In addition, we were put in early signs of mental disturbance and took immediate action, thus reducing the rate of psychotic and other drug reactions to a much lower figure.

Dr. Jopling started treatment on much smaller numbers, used lower dosage, and increased more slowly. Modern low dosage treatment must also contribute to minimize this complication.

There was no statistically organized test but I believe the sudden outcrop of psychosis on dapsone treatment can be explained on no other hypothesis.—I am, etc.,

Arthur S. Garrett
Norfolk


Blood Flow in Ischaemic Feet

SIR,—We would like to respond to one or two points which arise in the letter from Dr. V. C. Roberts and others (9 October, p. 114) commenting on our recently published findings (24 July, p. 220).

They would doubtless agree that there is not necessarily a discrepancy between their observations in atherosclerotic subjects of a lower than normal total limb perfusion as measured in the great vessels and our observations of a higher than normal resting foot blood flow. There may well be a fundamental difference between proximal and peripheral perfusion under these pathological conditions. Our findings and those of Yao indicate that there is a low systolic blood pressure and peripheral resistance in apparently ischaemic feet and therefore the level of femoral artery or vein blood flow is not necessarily a reliable indication of the level of foot blood flow in atherosclerotic subjects. There may, of course, be a simpler explanation for the difference between our findings and those of Dr. Roberts. Our measurements were made in controlled resting conditions where the normal exposed foot vasoconstrictors in response to room temperature around 22°C. There is no information about environmental conditions in Dr. Roberts's letter and, therefore, it is difficult to comment on the relative significance of their observations. However, it is certain that both anaesthesia and warm operating theatre conditions would have completely altered our results.—We are, etc.,

A. J. McEwan
I. Mca. Ledingham
University of Glasgow,
Department of Surgery, Western Infirmary, Glasgow W.1


Fingerprint Changes in Dermatitis Herpetiformis

SIR,—Dr. T. J. David and colleagues (5 December 1970, p. 594) in a study mainly in adults reported the common occurrence of epidermal atrophy to actual loss of fingerprint patterns occurring on finger digits in those who had suffered from one of us (Dr. J. Verbov, 2 January, p. 48) advised caution in the interpretation of such fingerprint changes and Dr. W. McCrae and colleagues (10 July, p. 109) did not find ridge atrophy in six children with this condition.

The occurrence of jejunal mucosal abnormalities in dermatitis herpetiformis was first reported by Marks et al., and Shuster and Marks found from published studies that two-thirds of patients with dermatitis herpetiformis have the enteropathy (coeliac syndrome) and in some cases there is intestinal malabsorption. More recently, Brow et al., using a multiple biopsy technique, have found the enteropathy to be almost invariably present. The enteropathy usually responds to a gluten-free diet.

Fingerprint changes in dermatitis herpetiformis are obviously of interest in view of the above and we report some preliminary findings. So far, fingers and fingerprints have been examined in 37 patients with dermatitis herpetiformis (12 women and 25 men). The age range of patients was 21-73 years and the mean age was 47.3 years. Intentionally, patients have been examined and prints analysed without prior knowledge of any jejunal biopsy findings. Most of our degree of ridge flattening with some white lines in prints were common, but did not appear to

Antileprosy Drugs

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