heart size decreased after discontinuation of digoxin, contrary to expectations.

These observations underline the inherent dangers of digitalis therapy, especially in coronary heart disease and respiratory insufficiency. It seems important to make sure that the only patients who are allowed to go on taking digoxin are those who otherwise would deteriorate clinically. At the moment the only way to achieve this goal is to discontinue the drug under conditions enabling close observation of the patients.

R KRAKAUER

Middelfart Sygehus,
Middelfart, Denmark

¹ Krakauer, R, and Petersen, B, *Danish Medical Bulletin*, in press.

² Cohn, K, et al, *American Journal of Cardiology*, 1975, 35, 461.

³ Davidson, C, and Gibson, D, *British Heart Journal*, 1973, 35, 970.

⁴ Steiness, E, et al, *Acta Pharmacologica et Toxicologica*, in press.

⁵ Covell, J W, et al, *Journal of Clinical Investigation*, 1966, 45, 1535.

Relevance of duration of transient ischaemic attacks in carotid territory

SIR,—We read with great interest the article by Dr M J G Harrison and others (17 June, p 1578) concerning the duration of individual transient ischaemic attacks (TIAs). Their and our data¹ are in agreement on several points. (1) Most carotid territory TIAs are very brief, usually lasting less than 30 min. This raises the question of adequacy of the usual 24-h criterion for TIAs. (2) The long TIAs, which are associated with normal or only minimally diseased carotid arteries, may be secondary to cerebral emboli from aorta or heart. In our series several patients with long attacks had arteriographic demonstration of intracranial arterial occlusions suggesting cerebral embolism. (3) About half of patients with bona fide carotid territory TIAs will have significant arterial disease in the extracranial internal carotid.

We do not, however, think that their conclusion that "stenosis of the cervical portion of the internal carotid artery was significantly more prevalent among patients whose attacks had been brief" is fully warranted. While it is true that patients with carotid stenosis have brief attacks, it also is true that most patients without significant stenosis have brief attacks. Of their 79 patients with brief attacks (groups 1 and 3), 41 had significant arterial disease (stenosis or occlusion) of the carotid-middle cerebral system and 35 had no or only minimal disease. If one considers only whether or not there was stenosis of the extracranial portion of the internal carotid artery, of those patients with brief attacks 30 had stenosis, 32 had normal or only minimal atheromatous changes, and two had complete occlusion. On the other hand, of the 37 patients with only long attacks six had significant arterial disease and 27 had no or minimal disease. Therefore we would conclude that most carotid territory TIAs are brief regardless of the degree of arterial disease in the carotid system; that long attacks are significantly related to no or minimal arterial disease; and that as a predictor of carotid-middle-cerebral arterial stenosis or occlusion TIAs of brief duration are statistically no better than TIAs of any duration.

Both series consisted of patients with only transient ischaemic attacks and not strokes. One might ask, if patients were followed to stroke would the duration of attacks change?

We have studied 64 patients with cerebral infarction in the distribution of the internal carotid artery and who had arteriographic demonstration of internal carotid artery stenosis or occlusion. Of the 33 (55%) patients who had prior transient ischaemic attacks, information on duration was available in 23. Only four patients suffered attacks longer than one hour. Thus the relation between duration of transient ischaemic attacks and stenosis appears to remain the same throughout the natural history of carotid stenosis.

GARY W DUNCAN

Department of Neurology,
Vanderbilt School of Medicine,
Nashville, Tennessee

MICHAEL PESSIN

Department of Neurology,
New England Medical Center,
Boston, Massachusetts

J P MOHR

Department of Neurology,
University of South Alabama,
Mobile, Alabama

¹ Pessin, M S, et al, *New England Journal of Medicine*, 1977, 296, 358.

Waiting lists for cardiac surgery

SIR,—The question of the varying length of waiting lists for cardiac surgery has recently received wide public attention and has been highlighted in your columns by the letter from Mr K K Nair and Dr S R Dunn (23 September, p 890). Unfortunately they, like others before them, have suggested a radical solution before considering the real nature of the problem. Surely it is important first to identify the reasons for the variations before proposing a remedy.

The absence of a waiting list in some areas may be due to one of a number of possible reasons. (1) The incidence or prevalence of heart disease may be substantially lower in some parts of the country than in others. (2) General practitioners and consultant physicians may not refer suitable patients to a cardiologist in some areas. (3) Cardiologists in some regions may adopt a more conservative approach to the management of heart disease. (4) Patients may be directed to a surgeon in another region either by the general practitioner, consultant physician, or cardiologist. This may occur if a particular unit is known to have a special interest or unusual expertise in the management of a particular problem.

If reason (1) were correct this might represent an argument for the closure of some units and expansion of others rather than the adoption of a national waiting list. However, although existing epidemiological data indicate that some regional differences in the prevalence of, for example, coronary disease do occur, this is insufficient to account for the great variation in waiting lists. The first reason is therefore not tenable. Assuming then that reasons (2), (3), or (4) are operating the solution surely lies at a local level in improved liaison between general practitioners, consultant physicians, cardiologists, and cardiac surgeons.

The adoption of a national waiting list would, I believe, not be accepted by cardiologists, cardiac surgeons, or patients. The difficulties of long-term follow-up of postoperative cases would be compounded and continuity of care would be sacrificed.

CLIVE A LAYTON

Cardiac Department,
London Chest Hospital,
London E2

Carcinoid of the breast

SIR,—Mr P G Devitt (29 July, p 327) reports on an argentaffin carcinoma of the breast. However, the histology as presented in the illustration is unconvincing. An acinar, trabecular, or insular pattern is not obvious. If the strands of dark cells in the photomicrograph are argentaffin cells, then the search for a primary midgut carcinoid should be continued. Primary carcinoids of the breast have been reported, but all were argyrophil only.^{1 2} Interestingly, primary carcinoids have been reported more often than secondary ones. Extramammary carcinoid presenting as a breast mass is exceedingly rare.^{3 4}

All carcinoids are malignant and therefore an attempt should be made to remove the entire tumour (or all of the tumours), especially in younger patients. However, most midgut carcinoids seem to grow very slowly, although there are exceptions. Metastasis of jejunoileal carcinoids is probably to lymph nodes initially and then to the liver. Mesenteric deposits are an important cause of symptomatology and mortality. Apart from retraction and kinking of bowel, the ileal carcinoid provokes a fibroelastic occlusive lesion of mesenteric arteries and veins with ensuing ischaemic enteritis or gangrene.⁵

T F C S WARNER

Department of Pathology,
University Hospital,
Indianapolis, Indiana

¹ Cubilla, A L, and Woodruff, J M, *American Journal of Surgical Pathology*, 1977, 1, 283.

² Kaneko, H, et al, *Cancer*, 1978, 41, 2002.

³ Harist, T J, and Kalisher, L, *Cancer*, 1977, 40, 3102.

⁴ Warner, T F C S, et al. In preparation.

⁵ Anthony, P P, *British Journal of Surgery*, 1970, 57, 118.

Radiology work load

SIR,—It would be wise to consider the implications of the content of the letter from Dr M Lea Thomas (2 September, p 706).

Firstly Dr Lea Thomas states that he "lets out" x-ray rooms to various clinical specialties as a means of overcoming the work load imposed on the radiologist. An important role of the department of radiology in any teaching hospital is the training of radiologists for the future, the majority of whom will work in district general hospitals when they achieve consultant status. It is obvious that Dr Lea Thomas can have no working knowledge of the very different staffing structure in these hospitals, in which the clinical specialties are covered by general physicians and surgeons with "an interest in" a particular specialty, such as chest diseases, cardiology, gastroenterology, etc. They do not have the support from experienced senior registrars and indeed the registrar establishment often falls short of acceptable requirements. How can these clinicians, who are as much overworked as any radiologist, be expected to gain and maintain the expertise to utilise the diagnostic x-ray facilities necessary to their varied requirements? These clinical services certainly need a well-trained radiologist as an integral part of the team. If St Thomas's Hospital opts out in this fashion should the college still regard it as a suitable training unit for future radiologists? We would question the advisability of this course.

Again, are we to withdraw this diagnostic service from general practitioners? In our long experience of district hospital radiology these