seven kidneys (5%), however, showed severe arterial beading of the type previously reported in rejection^{1,2}; and in another nine kidneys (7%) there were irregularities in the small renal arteries ranging from minor variations in vessel calibre and course to obvious segments of constriction or dilatation with abrupt terminations to the vessels. All the transplanted kidneys demonstrating these vascular abnormalities were undergoing rejection. One of the patients in whom aneurysms were demonstrated had arteriography of the transplanted kidney performed on two occasions; the first arteriogram showed normal intrarenal vessels, the second study one year later showed multiple small aneurysms which had developed during the course of rejection of the kidney.

There was considerable overlap between the different types of arteriographic abnormality seen in rejecting transplant kidneys; the 20 kidneys comprising the three groups described above demonstrated a spectrum of vascular changes ranging from mild variations in vessel calibre at one extreme to multiple aneurysms at the other. In summary, multiple intrarenal aneurysms or severe preaneurysmal beading were demonstrated in 8% of 136 arteriograms performed on malfunctioning transplanted kidneys. In a total series of 918 renal arteriograms rejection of a transplant was second only to polyarteritis nodosa as a cause of this type of aneurysm. Many causes of renal aneurysm are known,³ but the aneurysms seen in transplant rejection are most similar in their arteriographic appearance to those occurring in polyarteritis nodosa³ or drug abuse.⁴

Our findings support the contention of Dr Walker and his colleagues that transplant rejection can be a cause of intrarenal aneurysms, and we believe that such aneurysms represent one extreme of the wide spectrum of arteriopathic changes that can be demonstrated by arteriography during transplant rejection.⁵

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¹ Vinik M, Smellie WAB, Freed TA, Hume DM, Weidner WA. *Radiology* 1969;92:873.

² Raphael MJ, Steiner RE. In: *Recent advances in radiology*. Fifth edn. Lodge T, Steiner RE, eds. Edinburgh: Churchill Livingstone, 1975:159.

³ Travers RL, Allison DJ, Brettell RP, Hughes GRV. *Semin Arthritis Rheum* 1979;8:184.

⁴ Halpern M, Citron P. *Am J Roentgenol* 1971;iii:663.

⁵ Raphael MJ, Steiner RE, Stockman R, Ware RG. *Br J Radiol* 1969;42:873.

Elemental diets in treatment of acute Crohn's disease

SIR,—The difficulties in conducting controlled trials in Crohn's disease do not diminish the need for cautious interpretation of uncontrolled data such as those provided by Dr C O'Morain and colleagues (1 November, p 1173). The induction of remission claimed for the elemental diet may equally have been the result of bed rest or due to the drugs that 16 out of the 24 patients were taking.

Whether any beneficial effect of elemental diets is attributable to the characteristics peculiar to these formulations is similarly in doubt, and the much cheaper whole-protein low-residue liquid diets may be equally efficacious. Recently a trial of bowel rest in Crohn's disease using parenteral nutrition alone showed no significant improvement over results obtained using parenteral nutrition plus oral food (H Lochs *et al*, abstract PF7, European Congress of Parenteral and Enteral Nutrition, Newcastle, 1980). Both methods reduced the Crohn's disease activity index, which was attributed to improvement in nutritional status. But the property of having

no or low residue, with resultant bowel rest, may be important in the healing of local perianal lesions when nutritional deficiency is not a feature.¹

Elemental diets are not without hazards,² and before they are accepted as useful therapy in Crohn's disease controlled data on their efficacy must be obtained³ and comparisons with the cheaper whole-protein liquid diets undertaken.

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¹ Russell RI, Hall MJ. *Scot Med J* 1979;24:291-5.

² Hall MJ. In: Russell RI, ed. *Elemental Diets*. Cleveland Ohio: Chemical Rubber Company (in press).

³ Koretz RL, Meyer JH. *Gastroenterology* 1980;78:393-410.

Psychiatric morbidity and physical toxicity associated with adjuvant chemotherapy

SIR,—We were most interested in the report by Dr G P Maguire and others (1 November, p 1179) of a study of psychiatric morbidity associated with adjuvant chemotherapy following mastectomy, which is similar to the investigation already reported by us.¹ However, we should like to draw attention to an ambiguity which occurs in the first sentence. The wording and the grouping together of the first two references^{1,2} suggest that both papers make the claim that adjuvant combination chemotherapy causes little physical toxicity and psychiatric morbidity in patients with breast cancer.

In fact, our results, based on a series of 39 patients, showed that in those free from recurrent disease psychiatric morbidity, particularly depression, was significantly greater in patients completing a one-year course of chemotherapy than in those who had radiotherapy alone. Furthermore, data from a longer follow-up study involving 52 patients indicate that the psychiatric morbidity associated with chemotherapy persists for at least 12 months following the cessation of treatment.³ In the paper by Dr Maguire and his colleagues it is not clear when the differences in morbidity between the groups became evident, whether patients were still having chemotherapy at the time of the 12-18 month assessment, or whether they were free from recurrent disease. It is possible that part of the psychiatric morbidity observed by them could be related to the physical symptoms arising from recurrence of disease as well as those associated with drug toxicity.

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¹ Cooper AF, McArdle CS, Russell AR, Smith DC. *Br J Surg* 1979;66:362.

² Bonnadonna G, Brusamolino E, Valagussa P, *et al*. *N Engl J Med* 1976;294:405-10.

³ Hughson AVMH, Cooper AF, McArdle CS, Russell AR, Smith DC. *Br J Surg* 1980;67:370.

* * * We sent this letter to the authors, whose reply is printed below.—ED, *BMJ*.

SIR,—We welcome the letter from Dr Cooper and his colleagues for it enables us to cover points which were not included in our short report.

Our investigation was part of a larger study, which aimed to determine whether counselling by a specialist nurse reduced the psychiatric morbidity associated with the treatment of breast cancer.¹ Women about to undergo mastectomy were randomised to routine care or routine care plus counselling. Those whose lymph nodes had been invaded by cancer were further randomised to treatment with cyclophosphamide, methotrexate, and 5-fluorouracil (CMF), melphalan or no therapy.

Counselling failed to prevent psychiatric morbidity. So we considered that our findings accurately reflected the incidence of such morbidity in patients on adjuvant chemotherapy. The high morbidity in patients on CMF was not attributable to recurrence of disease since this had occurred in 4/18 (22%) of those on no treatment, 1/14 (7%) of patients on melphalan, and 1/26 (4%) of those given CMF. Regular monitoring by the specialist nurse led her to detect and refer for help most of those in the counselled group who needed psychiatric treatment. In view of this the questions posed about the duration of psychiatric morbidity in patients on CMF can be answered only by considering what happened in the non-counselled group.

The mood disturbance generally became evident two to three months after starting the 12-month course of CMF. It reached a peak six to eight months after starting treatment. The course thereafter was variable. The extent to which it persisted once treatment was completed is shown in the accompanying table. This persisting psychiatric morbidity has to be judged against the incidence in the "no treatment" group of patients, who suffered a greater incidence of recurrence (two patients within the follow-up period and one shortly after, compared with no patients in the CMF or melphalan groups).

Presence or absence of psychiatric morbidity at the end of the follow-up period. Figures in parenthesis give percentage of treatment group showing morbidity

Treatment group	Anxiety		Depression	
	+	-	+	-
Mastectomy alone	5 (50)	5	5 (50)	5
Mastectomy and melphalan	1 (14)	6	1 (14)	6
Mastectomy and CMF	7 (47)	8	5 (33)	10

CMF = Cyclophosphamide, methotrexate, and 5-fluorouracil.

Thus we believe that, while patients given CMF pay a considerable price for the possibility of improved survival, this is offset to a considerable extent by the problems they would have encountered through recurrence had they been given no further treatment. Further, more extensive studies are needed to confirm that this is so.

Finally we would like to correct an error which appeared in the table. The figures for the incidence of depression in the "mastectomy alone" group should have read:

+ - + -
9 (50) 9 and not 9 (32) 19

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¹ Maguire P, Tait A, Brooke M, Thomas C, Sellwood R. *Br Med J* 1980;281:1454-6.

Heart rate variations in the Guillain-Barré syndrome

SIR,—Dr Shirley A Smith and Professor S E Smith (11 October, p 1009) writing about our paper (6 September, p 649) say that "the difference in the size of the standard deviation between the two groups studied [patients