mimetic in the treatment of asthma.—We are, etc.,

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HBAg in Papular Acrodermatitis of Childhood

SIR,—Your leading article on Australia antigen in papular acrodermatitis of childhood (9 March, p. 407), criticizing Gianotti's[1] hypothesis that serum hepatitis and papular acrodermatitis of childhood (P.A.C.) are the same disease or are closely related, prompts us to report our own experience in the matter. We have recently seen three children with the characteristic picture of P.A.C. as described by Gianotti. Their serum bilirubin was normal and transaminases were at the upper end of the normal range. Using radioimmunoassay as described by Ling and Overby[2] we found that all three children were HBAg positive. None were living in any institution. Their parents were HBAg negative.

We agree that the presence of HBAg in cases of P.A.C. needs further investigation, and the most sensitive method available for this is radioimmunoassay. If such studies confirm previous reports they will provide strong support for Gianotti's theory of a close relationship between serum hepatitis and P.A.C. P.A.C. would then be the only disease other than serum hepatitis to be consistently associated with HBAg. Considering the prevalence of anicteric hepatitis in children P.A.C. might be a peculiar form of hepatitis in childhood due to a particular reactivity of the reticulohistiocytic system to the viral infection.—We are, etc.,

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1 Gianotti, F., *Archives of Disease in Childhood*, 1973, **48**, 794.
2 Ling, C. M., and Overby, L. R., *Journal of Immunology*, 1972, **109**, 834.

Single-dose Tinidazole Therapy for Giardiasis

SIR,—Because of increased travel *Giardia lamblia* infestation has become more common. Giardiasis may cause no symptoms but it may also cause long-lasting diarrhoea and bowel troubles.[1] Tinidazole 300 mg daily for seven days has proved to be an excellent treatment regimen with a cure rate higher than 90%.[2-4] Treatment with a single 2-g dose of tinidazole has given excellent results in cases of trichomoniasis, and this encouraged me to try the effect of single-dose tinidazole treatment in giardiasis.

Fifty-three adults (18 women and 35 men) aged from 18 to 47 years and nine children aged from 3 to 10 years were selected for study. All had contracted giardiasis when abroad, and in each case the diagnosis was confirmed by finding *G. lamblia* cysts in two formalin-preserved stool specimens. Salmonella and shigella infections were excluded by negative culture. The adults were given 2 g and the children 1 g of tinidazole in a single dose. Two stool specimens from each patient were examined by the formalin-ether concentration method of Allen and Ridley[5] at follow-up examinations one, four to six, and 12 to 16 weeks after the drug was given.

All 53 patients came to the first follow-up examination after one week. Cysts were found in the stools of two, both of whom complained of diarrhoea and periodic stomach pains. The second follow-up examination 4-6 weeks after treatment was attended by 49 of the 53 patients. Cysts were found in the stools of four, all of whom complained of bowel dysfunction. One had been to eastern Europe in the interval since the first follow up, had had a relapse of symptoms, and had probably been reinfected. Thirty patients attended all three follow-up examinations and at the third were free from cysts and had no symptoms. Seven of the nine children attended for all three follow-up examinations. They were all symptom-free and had no cysts in their stools. Two of these seven had been given a second dose of tinidazole 1 g after an interval of three days. Stool examinations were negative at two follow-up examinations in two children but they were lost to further follow-up.

The overall cure rate was 90%. Generally, the bowel symptoms disappeared one to three days after treatment. In a few cases some bowel discomfort lasted for about a week. A second single-dose treatment was given to the six patients in whom the first treatment failed. Two of them were cured, one of them being the patient who had probably been reinfected. The other four were finally cured with mepacrine hydrochloride after metronidazole had failed.

The single dose of tinidazole was generally well tolerated. Only minor side effects, including slight nausea and worsened diarrhoea during the day of treatment, were noted in 15% of cases. The efficacy of the treatment seems to be equal to the conventional one-week regimen. A single dose is much easier for the patient. So far as can be concluded from the small numbers 1 g of the drug is adequate for children.—I am, etc.,

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1 *British Medical Journal*, 1974, **2**, 347.
2 Andersson, T., Forssell, J., and Sterner, G., *British Medical Journal*, 1972, **2**, 449.
3 Howes, H. L., jun., Lynch, J. E., and Kivlin, J. L. *Anti-microbial Agents and Chemotherapy*, p. 261. Proceedings of the 9th Conference, Bethesda, American Society of Microbiology, 1969.
4 Pettersson, T. (1973). In *8th International Congress of Chemotherapy*. Athens, Abstract A-453.
5 Allen, A. V. H., and Ridley, D. S., *Journal of Clinical Pathology*, 1970, **23**, 545.

Drugs for Rheumatoid Arthritis

SIR,—We are indeed perplexed by the comments about our paper (28 September, p. 763) made by Dr. P. J. Rooney and his colleagues (28 December, p. 771). Having tried to repeat the χ^2 on our table III severally and together on a number of occasions, we find that our computing apparatus obstinately produces the answer which we originally published and refuses to disgorge theirs. We did in fact use Yates's correction, though they seem unable to believe this.

Perhaps we were open to criticism for other reasons. It might have been better to analyse table III as a 2×3 table and partition it after the manner of Kimball.[1] This approach in fact reinforces the significance of our findings, as does Fisher's exact test. Contrary to your correspondents' charitable suggestion, the expected frequencies in table III do not quite meet Cochran's revised criteria.[2] However, it is probably wiser to accept that any wrangle about significance levels where the numbers are rather small is fraught with risk. Our result lies just over the significance boundary; readers should draw their own conclusions about the biological significance of it from a study of the paper. In fact we believe that the weighting method which we described was sufficient to compensate for the inhomogeneity of the initial joint scores which was noted by your correspondents, and by ourselves. Differences between those given prednisone and others were in fact tested and found not to be significant.

The rest of the comments seem to boil down to the assertion that if one could foresee the outcome of a clinical trial one might stratify the propositi in a manner different from that selected when the trial was designed. This is undoubtedly true and we congratulate any of our readers who may have that prophetic insight which we admit we do not possess and thank them for their interesting discussions of a well-known problem in clinical trial design.—We are, etc.,

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1 Kimball, A. W., *Biometrics*, 1954, **10**, 452.
2 Maxwell, A. E., *Analysing Qualitative Data*, p. 38. London, Methuen, 1961.

Diagnosis of "Reflux Oesophagitis"

SIR,—The problem of orientation of endoscopic oesophageal biopsy specimens was mentioned in the paper by Dr. G. E. Sladen and others (11 January, p. 71). A recent paper from Japan offers some help to pathologists who have to cope with these small specimens. Conventional histological assessment of oesophagitis may not be possible with tangential cuts, but Kobayashi and Kasugai[1] have described an appearance of overlapping of capillaries on tangential sections due to the proliferation of vessels into the epithelial layer with the ingrowth of lamina propria. In 31 of 32 patients with such capillary overlapping the lamina propria extended more than half way across the epithelial layer on cross-section. This sign has been helpful in some of my own cases and it may not be widely known.

It is a pity that the acid barium swallow[2] was not mentioned. This test involves the swallowing of barium sulphate at a pH of 1·6. The normal oesophagus responds with normal peristalsis, while if oesophagitis is present a variety of abnormal contractions may be seen which can be recorded on videotape. In 1973 McCall *et al.*[3] described