chinellosis on tumour production. In our opinion, the reversible functional alterations (basophilia) of some muscle fibres during the early stage of trichinellosis may have the most important role. The metabolic activity in the transformed fibres is more vigorous than in the normal ones. Nickel compounds act as antimetabolites.[7] Therefore, nickel sulphide is likely to affect the basophilic fibres more strongly than the normal ones. Immunological mechanisms might also be involved: *T. spiralis* larvæ produce specific antigens, and these, perhaps, could suppress the immune response to the antigens of rhabdomyosarcoma.[8] Further experiments are in progress.

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TUBERCULOSIS MORTALTY UNDER SCRUTINY

SIR,—Your editorial [9] states that the inscribing of pulmonary tuberculosis in either part I or part II of the death certificate inflates the total mortality figures. But this is not normally true. Only those deaths where tuberculosis is entered in part I are counted as tuberculosis deaths. A part-II tuberculosis entry exceptionally swells the mortality figures if pneumoconiosis or fibrosis of lung appears in part I of the same certificate.

The gross inaccuracies consequent upon the present certification system, revealed by the recent major survey by the British Thoracic and Tuberculosis Association [10] had been anticipated by smaller surveys in Birmingham [11] and Leicester.[12] The fact that there has been no improvement in the significance of tuberculosis mortality figures in the intervening decade suggests the need for alterations in the regulations so as to demand a full inquiry into every case where tuberculosis appears in either part of the certificate. Indeed, since "failure to observe standard generally accepted practice "[10] is the commonest avoidable factor leading to death, perhaps the time has come to make every tuberculosis death a coroner's case.

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J. P. ANDERSON.

MASSIVE THIAMINE DOSAGE IN AN ALCOHOLIC WITH CEREBELLAR CORTICAL DEGENERATION

SIR,—We have lately seen a case of the restricted form of cerebellar cortical degeneration which occurs in alcoholics. The patient was a White male aged 48, an alcoholic of 25–30 years' standing. Ataxia of gait and incoordination of the legs had come on in the 2 weeks before admission. He also had peripheral neuropathy, as evidenced by diminution of two-point tactile discrimination over the feet and lower legs, absence of knee and ankle deep tendon reflexes, and bilateral calf tenderness (without evidence of peripheral vascular disease). Immediately on presentation, alcohol was totally restricted and he was started on a diet rich in carbohydrate and protein and very high doses of thiamine (200 mg. daily intramuscularly and 300 mg. daily orally, in divided doses). In addition he was given oral riboflavine (3 mg. daily) and nicotinamide (45 mg. daily). Clinical improvement was noted within 5 days of commencement of therapy. He was discharged from hospital after 18 days of therapy, and at that time the thiamine dosage was reduced to 300 mg. daily by mouth, which he took quite conscientiously. However, despite repeated warnings, he once more took to drinking alcohol. After 5 weeks' therapy the peripheral neuropathy had improved mildly, with slightly better two-point discrimination and lessened calf tenderness, but, more importantly—and indeed more remarkably—his cerebellar function had improved to the extent that he could walk with an almost normal gait, ataxia only becoming apparent on slow and deliberate heel-to-toe walking.

Victor et al.[1] described three quite different forms of this disease, the commonest being the florid one seen in our patient. In this, disability reaches its peak in weeks or months and then stabilises if the patient abstains from alcohol and takes a better diet. The condition is rare, and treatment has been discussed very little elsewhere. The few reports suggest that the patient should abstain from alcohol, nutrition should be improved, and B-group vitamins should be given. Despite this treatment the outlook has previously been poor. We are encouraged by the clinical recovery of our patient, and suggest that massive-dose thiamine therapy merits further trial.

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JOHN R. GRAHAM
DAVID WOODHOUSE
F. H. READ.

DISSEMINATED SCLEROSIS AND CONSUMPTION OF BRAINS

SIR,—Dr. J. Barrie Morley's letter (May 22, p. 1065) linking increased ingestion of sheep brains with multiple sclerosis stimulated me to make a short survey of our multiple-sclerosis patients.

Of the twenty patients polled, fifteen replied that they had never eaten brains of sheep, pork, or beef either as a child or as an adult. Four patients said that they had eaten pork brain as a child or in their early teens. Only one of them had eaten it more than three times a year—the others had eaten it only once or twice in their lifetime. One remaining patient continues to eat calf brains scrambled with eggs two or three times a year. The polling was done using the four questions Dr. Morley asked his patients.

Twenty normal adults (doctors, medical students, nurses, and secretaries) were also polled. Thirteen of these had never eaten any kind of central-nervous-system tissue that they could remember; four admitted to eating beef brains not more frequently than once or twice a year before their teens. Three other subjects, two of whom were born in the Middle East, admitted to eating lamb brains fairly frequently—at least ten times a year—up to about five years ago. One other subject had eaten beef brain only once in her life.

I would submit that perhaps Dr. Morley's data are more indicative of nutritional habits among his group of patients than the possibility of the existence of a slow virus in ingested sheep brain as a cause of multiple sclerosis.

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EMRE KOKMEN.

SIR,—The letter by Dr. J. Barrie Morley brings up a very interesting and fascinating twist to the problem of the pathogenesis of disseminated sclerosis. In my own restricted experience, disseminated sclerosis is relatively infrequent in Spain where, on the other hand, the custom of eating lamb brains is extremely common. They are considered a delicacy, and a cheap one at that, being a

7. Beach, D. J., Sunderman, F. W., Jr. *Cancer Res.* 1970, **30**, 48.
8. Corbeil, R. B. *Cancer*, 1968, **21**, 184.
9. *Lancet*, 1971, i, 1167.
10. *Tubercle, Lond.* 1971, **52**, 7.
11. Singh, M. M., Smith, J. M. *ibid.* 1957, **38**, 129.
12. Anderson, J. P. *ibid.* 1959, **40**, 99.

1. Victor, M., Adams, R., Mancall, E. *A.M.A. Archs Neurol.* 1959, **1**, 579.

classical treat in many a good dinner among the rural population of central Spain. It will be interesting for Spanish neurologists to check on the incidence of disseminated sclerosis in different regions and provinces, and to try to correlate it with lamb-brain eating habits of the inhabitants.

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Alabama 35233 RICARDO CEBALLOS.

-PENIA

SIR,—May I add *-penia* to the list of alternatives to *hypo-* suggested by Dr. Ell? In Greek it meant "poverty" and it is currently used in such words as granulocytopenia and thrombocytopenia. Although one can never tell what English speakers will do, I imagine that it would be quite a feat to pronounce *-penia* in such a way as to make it sound like *hyper-*.

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Italy. A. E. ATTANASIO.

VIRUS MENINGITIS IN TEESSIDE

Dr. R. J. DONALDSON, medical officer of health, Teesside, writes: "I omitted to specify in the statement you published last week (p. 52) the virus isolated from the cases of meningoencephalitis occurring in Teesside. Echovirus type 4 had been isolated from over 100 of the cases. The virus has been isolated from over 80% of the specimens (of fæces, cerebrospinal fluid, or nose-and-throat swabs) received from clinically diagnosed cases. It is highly significant that this virus has not been isolated from any specimen submitted for other reasons to the Public Health Laboratory."

Parliament

Reorganisation of the N.H.S.

In a debate on the consultative document on the National Health Service in the House of Commons on July 1, Mrs. SHIRLEY WILLIAMS opened the attack by taking the Government to task for not finding the time themselves to debate the document; she went on to say that the Opposition welcomed the integration of the N.H.S., and the decision to make the boundaries between the new health authorities and the local authorities coterminous. However, there were many things wrong with the document. On three very important matters—cooperation between the personal services and health services, day-to-day management, and communication within the health service—the Government had remained silent and had referred any decisions to working-parties which would be unlikely to make their reports before the end of the period of consultation. There did not seem to be any reason why the period of consultation was to be so short—only 10 weeks or less. The document was hopelessly vague on certain crucial issues; it did not say, for example, whether the Secretary of State would appoint all members of the area health authorities, nor did it say how he would select the representatives of the professions, nor what professions these were.

The first major criticism of the substance of the document was that a managerial model had been chosen which seemed to many people to be inappropriate to what ought to be a personal and humane service. It set up a powerful centralised regional structure and therefore would break down the responsibilities of the area health authorities. Representation on the health authorities by members elected by the local authorities and the professions was to disappear completely in the interests of the appointments made by the Secretary of State; the Government had failed to grasp that the health authorities must be seen to be, and must be, accountable to the public. They believed that the answer lay in what the document called community health councils; this was the "strangest bunch of administrative eunuchs" that any Department had yet foisted on the House. The councils would be able to visit hospitals, but most people could do this; they could produce annual reports, but nobody would read them because the councils had no power to do anything. The Opposition was sorry that the independent contracting committee for general practitioners was not to be a special committee of the area health committee, but would be divided off almost completely. There was every reason to believe that the regional health authorities would continue to be hospital-dominated, and the general practitioner even more overlooked than before. The Opposition would like to know what the Government's plans were with regard to the community physician, to the special problems of London, to the school medical service, and to the occupational health service. Would the Secretary of State agree, Mrs. Williams asked finally, that the consultative document offered a reorganisation that was inadequate and a consultation which was a travesty, and, consequently, that it was time the document was withdrawn.

Sir KEITH JOSEPH said in his reply that he would do his very best to prolong the period of consultation. The area health authority would, in the new system, be the operating unit. The chairmen of the areas would be appointed by the Secretary of State; there would be some members appointed by the coterminous local authority, and some (probably 3) appointed from among medical and nursing people. These appointments and others, which would include a university member and a representative of the teaching hospital where there was one, would be made by the regional health authority after consultation with the interests concerned. The Government had been criticised for choosing to put a management emphasis on the area health authority, but without the essential qualities of management—leadership, persuasion, energy, and drive, all geared to professional advice—the country would have in the future, as it had now, very uneven services to the public. It was proposed in the document that members of the community health council should be appointed by the area health authority, but that might not be the best answer. Discussions were now taking place with the Department of Education and Science on the School Medical Service. It must be emphasised yet again that the country would never be able to afford to look after the health and welfare of the public entirely by paid service; the first line of defence must be the family and the second line must be the voluntary organisations.

Mr. RICHARD CROSSMAN said that if a person was desperately ill there was no other country in the world where he would be as well looked after as in Britain, but the service failed when a person was not desperately ill. The terrible problem of the gap between local authorities and the health service must be dealt with. If there was any sense in the world, the health service would come under the new local authorities, but the medical profession and the Chancellor of the Exchequer were against it. The greatest faults in the health service were its remoteness from the patient and its bureaucratic nature; control of the service rested in the 14 regional hospital boards, and that was what was wrong, but the consultative document only served to strengthen power at the regional level. The regional health authorities would be exactly the same as the regional hospital boards—the same imperceptive bureaucratic machines with a lot of civil servants as well as hospital people. The Government were mai-