as a cause, a correlate, or a consequence of mental illness. The difficulties inherent in this situation, the therapeutic nihilism which can be induced by it, and the futility of therapeutic effort directed towards intelligence rather than pathology have led to an almost total devaluation of the therapeutic processes. This has led to replacement of treatment by institutionalization and custodial care. Because these are social rather than medical or psychiatric techniques they have failed in the hands of doctors and nurses whose roles in subnormality have become undervalued by their own professions and by others. As a result, both physical and psychiatric illness has gone unidentified, therefore untreated, and the symptomatology attributed directly to the intellectual deficit.

Thus as a profession we must hasten to clarify our role in subnormality—that is, the identification and treatment of the physical and psychiatric illnesses and disturbances commonly accompanying intellectual deficit. Intelligence must be removed rapidly from its predominant position relative to treatment and seen for what it is—merely one of many factors influencing variably the response to and the choice of a spectrum of therapeutic techniques now available. We must also learn to identify pathology expressed and communicated atypically and at apparently inappropriate developmental levels in order to treat it vigorously and individually, so casting off the mantles of institutionalization and custodial care, for they have restricted our therapeutic sensibilities and smothered our skills. This task completed the profession will be able to evaluate its own effort in subnormality directed towards treatment modified by the requirements of the individual, whatever his handicap. As a result it will recognize that the effort on behalf of the intellectually handicapped individual, as distinct from “the subnormal,” is as worthwhile to those individuals as it is to their intellectually normal fellows. Gratitude and pleasure (in Suttie's sense) do not cease suddenly at an I.Q. of 70.—I am, etc.,

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Tests of Hearing in School

SIR,—Dr. L. Fisch (10 August, p. 409) has perhaps missed the point of my original article.¹ I agree with him that the sweep test could have been set at 20 decibels but, as he states, there is wide variation throughout the country in the methods employed. The suggestion that impedance audiometry might replace sweep testing is based on the assumption that there were more adequate preschool screening services at all ages from birth up to school entry. I realize that this assumption may not be correct for certain parts of the country, and difficulties may be experienced in implementing full-scale audiometric services until there is a reasonably captive population at the age of five. It is assumed that the sensorineural defects would be detected before school entrance. Unfortunately there is still a dichotomy in thinking between the preschool service and the school service, which it is hoped will disappear.

However, assuming that the preschool service is of high quality, I think that there is a case for examining whether impedance audiometry ought to be given more prominence at school entry. I can-

not agree that the time needed for 40-60 pupils using impedance audiometry would be so long as 10 hours. This has certainly not been our finding, and Denzil Brooks² is of the opinion that less skill is needed for the impedance audiometry test than for sweep testing, provided there is an adequate means of reporting.—I am, etc.,

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- 1 Ferrer, H. P., *Public Health*, 1974, **88**, 153.
- 2 Brooks, D. N., *Hearing*, 1971, **26**, 250.

Nephrotic Syndrome with Oat-cell Carcinoma

SIR,—I read with interest the paper by Dr. M. R. Higgins and others (17 August, p. 450) describing a case of nephrotic syndrome with oat-cell carcinoma. Their findings of large quantities of extracellular DNA in necrotic tumour tissue and Feulgen-positive deposits within glomerular basement membrane are not surprising. Haematoxyphil change around blood vessels (fig. 1) in oat-cell carcinoma has been shown to be due to the deposition of Feulgen-positive material.¹ Similar vascular change has been described in retinoblastomas and a possible immune response suggested.²

FIG. 1—Haematoxyphil sheath around a vessel and tumour necrosis. (× 209)

FIG. 2—Electron-dense fragments in the subendothelial region. (× 3,190)

I have recently described the ultrastructural appearances of such vessels in an oat-cell carcinoma.³ The deposits consisted of fragments of nuclear material trapped in the subendothelial region (fig. 2). Similar nuclear fragments were present in necrotic areas of the tumour. An interesting finding was the presence of fine fibrillar material resembling antigen-antibody complexes surrounding some of the nuclear fragments. This feature leads me to suggest the possibility of an immune process existing in some patients with oat-cell carcinoma. A case of nephrotic syndrome with oat-cell carcinoma appears to support this suggestion. The estimation of

anti-DNA antibodies in oat-cell carcinoma patients should be of interest.—I am, etc.,

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- 1 Azzopardi, J. G., *Journal of Pathology and Bacteriology*, 1959, **78**, 513.
- 2 Mullaney, J., *Lancet*, 1968, **2**, 918.
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SIR,—The medical memorandum by Dr. M. R. Higgins and others (17 August, p. 450), reporting a case of nephrotic syndrome with oat-cell carcinoma, suggests the possibility of antibody formation against nuclear antigen, possibly DNA, released by tumour necrosis.

I showed¹ that much of the basophilic deposition in retinoblastoma previously attributed to focal calcification was in fact due to DNA precipitation. I postulated that these deposits might be a manifestation of some form of tumour activity. Dr. A. Ahmed quoted² my work and with electron microscope studies on cases of oat-cell carcinoma of the lung found a similarity between this vascular DNA deposition and similar fibrillary material considered to be antigen-antibody complexes in dermal lesions in disseminated lupus erythematosus.³

I suggested⁴ doing serological studies in retinoblastoma cases to determine if anti-DNA antibodies might be present, particularly in relation to the occasional spontaneous retrogression of these growths. I would also like to offer a theory that the demyelinating phenomena which can occur in oat-cell lung cancer patients could be due to localizing antigen-antibody complexes in the central nervous system, such as may be happening in the kidney in the nephrotic syndrome, and that a DNA product may act as the antigen.—I am, etc.,

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- 1 Mullaney, J. M., *Archives of Ophthalmology*, 1969, **82**, 454.
- 2 Ahmed, A., *Journal of Pathology*, 1974, **112**, 1.
- 3 Grishman, E., and Churg, J., *Laboratory Investigation*, 1970, **22**, 189.
- 4 Mullaney, J. M., *Irish Journal of Medical Science*, 1969, 7th ser. **2**, 57.

Intrathoracic Foregut Cysts

SIR,—I was interested to read the leading article on this subject (20 April, p. 132), and I regret that my absence from the U.K. has delayed my comments. It is also unfortunate that I am away from most books of reference as well as my own clinical records. What is not stressed in the article is that such lesions may be manifestations of a much more extensive “spinal dysraphism.” This syndrome can include mesenteric cysts and intestinal duplications, intrathoracic cysts, and also intraspinal lesions—the so-called enterogenous cysts. Any of these lesions may be associated with a wide variety of axial skeletal anomalies, which include hemi-vertebra, fusion of vertebral bodies or of laminae, bifid vertebral bodies, and fused or forked ribs. In one article in the *Proceedings of the Staff Meetings of the Mayo Clinic*, on intestinal anomalies, these changes were referred to as “scrambled spine.” There may also be anomalies of the spinal cord.

Some years ago Mr. R. A. C. Jones, of