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all infants born during a two-month period in the maternity ward of our hospital. The results show (figure A) that in 122 out of 125 samples rT_3 levels were 4-9 times above the normal adult range. All children were euthyroid. In the other 3 cases (figure C) the rT_3 was in the normal adult range. In these cases the slightly raised serum T_3 levels and the normal serum T.S.H. levels suggested that the sera were from the mother since in cord-blood serum T_3 levels are highly reduced and T.S.H. concentrations are normal or increased. The error could therefore be elucidated without further blood-sampling.

The rT_3 levels screened in the 122 babies contrast greatly with 2 undetectable T_3 levels (figure B) found in 2 cases of congenital hypothyroidism, diagnosed at one week and six weeks after delivery. Both cases cannot be strictly compared with the results obtained at birth in cord blood. For reasons given above, however, it seems unlikely that maternal T_3 could influence the level observed in cord blood.

We conclude that screening for neonatal hypothyroidism with serum T_3 could be of advantage and certainly deserves further investigation. This method is simple and hardly influenced by abnormal thyroxine-binding globulin, which greatly affects serum- T_4 levels. It is likely that such a screening done at birth would permit early detection of congenital hypothyroidism and give the affected child the best chance of avoiding mental retardation.

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FUNGAL TOXINS AND ENDEMIC (BALKAN) NEPHROPATHY

SIR,—Apostolov et al.¹ have suggested a viral aetiology for endemic (Balkan) nephropathy (E.N.), based upon the observation of electron-dense particles, thought to be coronaviruses, in cells of the nephrons, especially in the proximal tubules. The hypothesis was supported by some epidemiological data on E.N. pointing to pigs in the endemic villages as the source of infection with coronavirus. Georgescu et al.² have also demonstrated virus-like particles in renal tissue from E.N. patients. Pursuing the virus hypothesis by serological investigations, however, led this group to conclude that evidence for a viral cause for E.N. is still entirely morphological. Macanović et al.³ indicated that E.N. is an immunocomplex-type nephritis and pointed out that virus-like particles have been demonstrated in several other conditions without any causal association with the renal lesion in question.

We want to draw attention to the hypothesis that E.N. is caused by ochratoxin A or other fungal toxins, proposed at the 2nd International Symposium on Endemic Nephropathy⁴ and referred to in your 1973 editorial.⁵ This hypothesis was based primarily upon the striking similarities between E.N. and ochratoxin-A-induced porcine nephropathy. Ochratoxin A is a major disease determinant of naturally occurring nephropathy in pigs^{6,7} and poultry.^{8,9} Meat of pigs and poultry exposed to

ochratoxin-A-contaminated feed contains residues of ochratoxin A,¹⁰ a heat-stable metabolite. Ochratoxin A has been encountered in 10-20% of homegrown cereals and pork meat in an endemic village in Yugoslavia.¹¹ In the search for an environmental cause of E.N. ochratoxin A seems a likely candidate. The possible role of fungal metabolites in the aetiology of E.N. is further supported by the highly significant correlation between excess of rainfall over evaporation in harvest and initial storage periods and the number of people who die of E.N. during the succeeding two years, observed in all three E.N. countries (Bulgaria, Romania, and Yugoslavia).¹² A high water content in foodstuffs favours fungal growth and mycotoxin formation.

The possible association of pig husbandry and E.N. mentioned by Apostolov et al.¹ would be better explained by indicting ochratoxin A residues in pork meat, and hence a higher exposure for those people who eat pork meat compared with non-consumers of pork meat (the Muslims). Furthermore, if pig-borne coronavirus were the cause of E.N., would not one expect nephropathy among workers at pig slaughterhouses all over the world?

To test the ochratoxin hypothesis information is needed on total exposure of the village population in endemic areas, based upon total diet studies. Work of this type is now in progress at the Institute for Medical Research, Zagreb. Also important in this context is the possible detection and localisation of ochratoxin A in kidneys from E.N. patients. Work of this type, by use of immunofluorescence, is now in progress at our institutes.

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SERUM-H.D.L. IN ATHEROSCLEROTIC HEART-DISEASE

SIR,—The concentrated form necessary for presentation of data in your excellent letters section may occasionally lead some of your readers to suspect that authors have overlooked important, and even elementary, facts. Thus Fuller and McCartney¹³ find it difficult to judge the significance of our data¹⁴ on serum high-density lipoprotein (H.D.L.) levels in patients with coronary heart-disease (C.H.D.) because we did not give information on other variables. In fact we did not find any significant correlation between apo-AI-containing lipoprotein particles and other relevant indices (the fact that we did not measure H.D.L. cholesterol but apo-AI-containing particles is also relevant to the interesting letter by Lopes-Virella and Colwell.¹⁵ Clearly, we would not have stressed the potential usefulness of H.D.L. determination if the data had suggested that quantitative H.D.L. variation largely reflects variation in other lipoprotein indices.

Fuller and McCartney question our statement that "H.D.L. concentration is to a great extent independent of lipid and lipoprotein indices usually measured". Obviously, our statement does not preclude the existence of correlations between H.D.L. level and other lipoprotein parameters. Data in the papers cited by Fuller and McCartney on the H.D.L.-cholesterol/V.L.D.L.-triglyceride relationship yield a coefficient of non-determination ($1-r^2$) in the range 0.65-0.87. We agree with their statement concerning the H.D.L.-cholesterol/L.D.L.-cholesterol relationship, that it "has varied between positive, negative, or non-significant". We think that our statement covers this situation adequately.

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