machinery of the courts remains inadequate to deal with disputed questions of the custody of children. It is to be hoped that something better will come with the mooted reorganization of the High Court, which will combine the custodial functions of the Chancery Division and the Probate, Divorce, and Admiralty Division in a new Family Division of the High Court.

**Muramidase in Leukaemia**

In a paper to the Royal Society in 1922 Alexander Fleming reported the discovery of “a remarkable bactericidal element found in tissues and secretions.” This substance, to which he gave the name of “lysozyme,” was present in particularly high concentration in tears, saliva, and sputum, and was also found in serum and pus but not in normal urine. Fleming and V. D. Allison later produced further evidence of the relationship of lysozyme to leucocytes and postulated that it was the substance by which they brought about bacterial digestion.

The presence of lysozyme in leucocytes has since been abundantly confirmed. It is found in neutrophil granulocytes at all stages of maturation, and in monocytes, but not in lymphocytes, eosinophils, basophils, or myeloblasts. The observations of S. C. Finch and his collaborators suggest that the lysozyme of serum is derived mainly from the granulocytes, and that the serum concentration of lysozyme may provide an index of granulocyte turnover. Though monocytes also contain lysozyme in high concentration, their total number in normal blood is probably too small and its range too narrow to influence the serum concentration of lysozyme significantly. The Commission on Enzymes of the International Union of Biochemistry has recommended that the term lysozyme should be replaced by the designation “muramidase,” and this has now come into general use.

The serum concentration of muramidase is often raised in tuberculosis and sarcoidosis, in which mononcytosis is common, and increased serum and urinary levels have been observed in patients with a variety of renal diseases. S. Inai and colleagues found very high levels of serum muramidase in patients with chronic myeloid leukaemia but subnormal levels in both acute lymphoblastic and acute myeloblastic forms. Since their early report several other groups of workers have observed high serum levels of muramidase in chronic myeloid and consistently low levels in acute lymphoblastic leukaemia, but in acute myeloblastic leukaemia a wide scatter of results has been recorded—usually within the normal range or above. The most striking elevations of serum muramidase have been observed in acute monocytic and myelomonocytic leukaemia. This is particularly well brought out when the serum enzyme activity is related to the total white-cell count. High serum levels in leukaemic patients tend to be associated with a raised urinary excretion of muramidase. In the myeloid types this probably results from a simple threshold effect, but the unusually high ratio of urine muramidase to serum muramidase found in monocytic leukaemia suggests the possibility of a renal tubular defect in this condition.

What might be the practical value of these observations in the diagnosis, prognosis, and management of acute leukaemia? The distinction between lymphoblastic and other types is important both in the assessment of prognosis and for the choice of drug combinations. When the cytological diagnosis is in doubt, a normal or raised serum level of muramidase will point to myeloblastic rather than lymphoblastic leukaemia. The relatively uncommon monocytic leukaemias, with their very high levels of muramidase, are seldom difficult to recognize on cytological grounds. P. H. Wiernik and A. A. Serpick, in a recent survey of muramidase activity in 77 leukaemic patients, found that a raised serum level at diagnosis carried an unfavourable prognosis in acute myeloblastic leukaemia. In monocytic, myelomonocytic, and lymphoblastic leukaemias the serum muramidase reverted to normal only when complete bone marrow remission was achieved, and it became abnormal again on relapse, but in myeloblastic leukaemia no such constant correlation was observed. Though the initial serum muramidase may thus serve as an additional guide to diagnosis and prognosis, serial determinations appear to have little to add to the haematological assessment of the state of the disease. It is possible that they will provide an index of extramedullary infiltration when this occurs, but the study of further cases is needed to confirm that suggestion.

**Health of the Nation**

Politicians are fond of telling us how many more houses they have built (or doctors they have trained, or whatever) than ever before. What they fail to point out is that while the population of Britain continues to rise more must be done every year just to maintain standards. The economy must run ever faster to stay in the same place.

There is no immediate prospect of any halt to this continuing rise. In his annual report the Chief Medical Officer to the Department of Health and Social Security comments that the proportion of women in the child-bearing age group is increasing, and this must soon lead to an increase in the birth rate. The working population will form a progressively smaller proportion of the whole, and the excess of very young and very old will make heavier demands on the health services. And yet only one local authority in six has a full family planning service. Sir George Godber observes that if there are 200,000 unwanted pregnancies a year it would be far better to prevent them than to terminate them.

In 1968 two important changes were made in the law. The Abortion Act came into force in April. By the end of

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