

PUBLIC HEALTH.

AGRANULOCYTOSIS—A RECENTLY RECOGNISED DISEASE OF THE BLOOD.

An extremely interesting Review of Certain Aspects of a recently recognised Disease of the Blood (Agranulocytosis or Agranulocytic Angina), by Dr. E. W. Adams, C.B.E., M.D., has recently been published, under the authority of the Ministry of Health, by His Majesty's Stationery Office (price 6d. net).

Sir George Newman, Principal Medical Officer of the Ministry in a preparatory note addressed to the Minister of Health, describes:

"Agranulocytic angina is a morbid condition, or perhaps more correctly, syndrome which has of late been attracting a considerable amount of attention and which presents many points of interest. First brought into notice in 1922 by W. Schultz it appeared to be of great rarity, only 43 instances have been reported during the quinquennium following Schultz's paper. Recently, however, and especially during the last year or two, descriptions of a considerable number of instances of its occurrence have appeared in the medical literature, especially in that of the United States, Germany and Denmark, and its relative frequency seems to be increasing. Only a score (or thereabouts) of cases have been reported in England, most of them since 1933. There is however some reason to believe that, now the attention of physicians has been directed to the disease, it may be found that some of the anomalous and puzzling cases of severe sore throat, encountered from time to time, may prove with more accurate blood examinations to be examples of the Schultz syndrome.

"Some light has been thrown upon the obscure aetiology of the disease by the discovery that in a not inconsiderable proportion of the cases the previous ingestion of *amidopyrine* has been a feature of the medical history, and there is now quite a considerable body of evidence pointing to the causal relationship of this drug to agranulocytic angina. The importance of this observation lies in the sphere of prevention, for if it be true (and there appears to be little doubt) that in susceptible persons the administration of amidopyrine may give rise to agranulocytosis, precaution in the use of this drug may save those persons from an affection which only too often runs a fatal course. A point of interest lies in the apparently promising results of treatment with the new drug *pentose nucleotide*, a treatment which in spite of some failures seems to hold out more hope of success than any previously tried."

Clinical Features.

The Author states that the patient is usually a woman of middle or late middle age, though males are also affected and instances of the disease have been recorded at all ages—even in children. In a number of instances the attack seems to have borne a definite relation to the menstrual period (Thompson 1934, Jackson et al. 1934) and it has also been frequently noted that extraction of a tooth appears to have been an exciting cause. In other cases (see Hartfall, 1934) Vincent's angina has been precedent. The typical acute attack is often preceded by a prodromal period during which sore throat or a sore mouth with an indefinite feeling of malaise or lassitude have been complained of. Very rapidly, generally in two or three days, the lassitude increases to a marked prostration and the patient is feverish, while the sore throat gives rise to great discomfort. On inspection ulcerative or even gangrenous processes may be seen in the tonsillar and pharyngeal regions, while the gums and other parts may also show ulcerative lesions. A bacteriological examination of the throat shows a multitude of organisms many of low pathogenicity. Jaundice is not frequent, haemorrhage is rare and the patients have no true anaemia. Spontaneous

recovery may occur, though very rarely, but in fatal cases death is not generally postponed beyond two or three days from the commencement of the severe symptoms. If recovery occurs there is often a tendency to relapse. A blood examination reveals a characteristic picture. There is little or no alteration in the erythrocyte or blood platelet counts and the haemoglobin estimation is normal or nearly so. The total white count is usually lowered, though not invariably, but there is a severe and characteristic neutropenia with a total or nearly total absence of the granulocytes (polymorphonuclears). After death the bone-marrow is found to be destitute or almost destitute of granulocytes.

The neutropenia is invariably present, but there may be, in so far as the clinical aspect is concerned, many variations from type in individual cases. Angina, though very common and characteristic, is rarely not present, the disease may not run an acute course, but may be subacute, subchronic or even, as some maintain, chronic. Also described, is a peculiar recurrent form in which the patient suffers from repeated attacks of agranulocytosis for months or even years.

A Fundamental Difference.

Beck makes the interesting suggestion that there is a "fundamental difference in the pathologic changes underlying the fatal cases and those which recover." She thinks that in the fatal cases the maturation of the granulocytes has ceased and the granulopoietic tissues have been exhausted while in the non-fatal cases maturation has merely been arrested for want of a "chemotactic factor to call the granulocytes to the circulating blood." If this be correct, it would go far to explain both the failures and successes of the pentnucleotide therapy.

DEVICES TO LESSEN NOISE.

Lord Horder, chairman of the Anti-Noise League, deserves all support possible, and all who can spare time will be wise to visit the forthcoming Noise Abatement Exhibition in which he is interested, to be opened by the Prime Minister, on May 31st, at the Science Museum, South Kensington, and the Building Centre, New Bond Street. It is planned that at this exhibition the public will be able to see devices by which noises may be avoided or mitigated. It is hoped that the exhibition will bring home to the community not only a sense of the problem of noise but the belief that there is now a determined campaign to seek a remedy.

THE NEW MALARIA DRUG.

The Executive Committee of Health for Ceylon has recommended the expenditure of Rs.150,000 (£10,000) on atebri-musonat.

Atebrin-musonat is the old drug atebri in an easily soluble form. It has been used with success in the treatment of malaria, and a large-scale test was recently recommended by the Ceylon Medical Department.

THE FIGHT AGAINST SYPHILIS.

The American Medical Association and the National Health Council (which includes the national nursing organisations) have entered upon a joint intensive campaign for the prevention of congenital syphilis. Congenital syphilis can be prevented if every pregnant woman is given an early medical examination, including a blood test, and where indicated, started on treatment. Nurses can do a lot to encourage early examinations and to allay the fear of them which many women have.

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