Medical Memoranda

Polycythaemia Vera with Low White Cell Count

Various workers have studied the white cell count in cases of primary polycythaemia vera (Vaquez-Osler disease), and the consensus of opinion is that the leucocytes are usually increased, like the red cell count and the haemoglobin concentration. Parkes Weber and Bode (1929) stated that the white cell count usually reaches 20,000 to 30,000 per c.mm., and they quoted the findings of other authors referring to counts of 50,000 to 91,000. The differential count in such cases shows that from 80% to 85% of the leucocytes are polymorphs.

Frankly leukaemic white cell counts have been reported in the later stages of polycythaemia by a number of authors, and polycythaemia may develop in the late stages of leukaemia (Parkes Weber and Bode, 1929; McAlpin, 1929; Whitby and Britton, 1939). Kellmann (1939) reviewed the literature on the white cell count in polycythaemia and again emphasized the extreme frequency of polymorphonuclear leucocytosis, himself reporting a case in a child with definite leukaemic manifestations. Although a polymorph leucocytosis is thus seen to be the usual finding in polycythaemia vera, low white cell counts have been recorded on a few occasions. Parkes Weber and Bode (1929) referred to counts of 1,080 and 4,000 white cells per c.mm., while Cross (1931) recorded two cases with counts of 6,700 and 8,400 per c.mm. The clinical and haematological findings in our case were as follows.

CASE REPORT

The patient, a man aged 44, had complained of "spots in front of the eyes" for several years; this condition had become worse during the last twelve months. A few weeks before admission he had complained of headache, weakness, loss of energy, indigestion, and tightness in the chest. On examination the typical facies of polycythaemia, with congested conjunctivae and florid complexion, was seen. The blood pressure was 130/95. The spleen was hard and considerably enlarged, extending half-way towards the umbilicus.

On October 4, 1941, the patient was bled, 16 oz. of blood being removed. From October 6 to 11 (inclusive) the chest and abdomen were given x rays, a total of 150 r units being administered. From the 19th to the 24th (inclusive) further x-radiation was given, the total dosage again being 150 r units. The spleen became noticeably reduced in size after this treatment.

On October 2, before treatment was started, the haemoglobin was 150%, the red cells 7,000,000 per c.mm., while the white cells numbered only 5,200 per c.mm. On the 16th, after a week of x-radiation, the haemoglobin was found to be still 150%, but the red cell count had fallen to 6,115,000 per c.mm. and the white cell count to 4,400, the differential count being 88% polymorphs and 12% lymphocytes; the stained film showed some megaloblasts. On October 27, after the second course of x-radiation, the haemoglobin was 140%, the red cells 5,810,000 per c.mm., while the white cell count had fallen still lower, to 3,400 per c.mm.

We wish to thank Dr. C. Lawson Stote for allowing us to publish the clinical details of this case, and Dr. John Lavelle for furnishing details about the x-ray treatment.

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Reviews

ELECTROCARDIOGRAPHY

Clinical Aspects of the Electrocardiogram, including the Cardiac Arrhythmias. By Harold E. B. Pardee, M.D. Fourth edition, revised. (Pp. 434; illustrated. 35s.) London: H. K. Lewis. 1942.

Those who ten years ago believed that the electrocardiogram had yielded as much information as it was likely to in the study of heart disease must have been increasingly astonished at the ever-widening scope of electrocardiography. Dr. Harold Pardee, in the fourth edition of his book, has brought this subject completely up to date. The latest notable development—chest-lead electrocardiography—has naturally received special attention; in fact, publication has been delayed so that this subject could be presented in the most complete form. Another valuable chapter is that dealing with the clinical significance of abnormal waves; in this the author states the fundamental principles of electrocardiographic interpretation. Emphasizing the facts that repeated records are often necessary before it can be decided whether an abnormal record represents a structural or a functional change, and that those due to the latter are of relatively short duration, he points out also that drugs such as digitalis, toxins, hormonal dysfunctions, and vitamin deficiency are among influences which must be considered in cardiographic diagnosis.

The development of an accurate instrumental method for the appraisal of myocardial function has unfortunately encouraged many with little clinical experience to draw unwarranted conclusions from the record. It is therefore good to see here denounced the fallacy that the electrocardiogram may as an isolated fact afford a basis for prognosis. Dr. Pardee points out that much remains to be worked out concerning the role of the electrocardiogram in prognosis; and he rightly deprecates the fact that the physician is so often called upon to read the future. His statement of the factors controlling prognosis is of fundamental importance: the aetiology of the disease, the rate of progress and response to treatment, the present extent of the disease and the degree of interference with cardiac function, and the possibility of repair of defects and restoration of function.

This work is of the high standard that would be expected of an eminent authority, and it is only a pity that the electrocardiograms themselves do not uniformly reach a parallel degree of excellence.

MENSTRUAL DISORDERS AND STERILITY

Diagnosis and Treatment of Menstrual Disorders and Sterility. By Charles Mazer, M.D., F.A.C.S., and S. Leon Israel, M.D., F.A.C.S. (Pp. 485; illustrated. \$6.50 or 39s.) New York and London: Paul B. Hoeber.

Sterile marriage is often a source of the greatest personal distress to the parties concerned. Its importance is not, however, confined to the four walls of the childless home, for when it is remembered that approximately 15% of all unions are unfruitful the problem can be viewed in the true perspective of national and international importance. The challenge it presents to the medical profession has in the past been too seldom accepted, but with the demands a world war is making on men and women alike an adequate response to this challenge becomes imperative if youth is to play its fair part in building the new world. This being so it would be difficult to think of a more appropriate time for the publication of a book so informative and stimulating as Mazer and Israel's *Menstrual Disorders and Sterility*. These two authors, who have established a wide and justly earned reputation for their excellent work at the University of Pennsylvania, write with authority on menstrual disorders. The work they have now published is a most carefully compiled and detailed account of the subject which should commend itself to all interested in diseases of women. The authors claim that the book is written primarily as a guide to family physicians, who are the first to see and treat the numerous women suffering from menstrual disorders and sterility. This claim is a modest one. It would be safe to prophesy that the volume will become a recognized classic on the subject, and its wealth of detail and instruction will probably be of greater value to the consulting specialist than to the practitioner.

A concise account of the physiology of the pituitary gland and ovary prepares the way for an excellent description of