POLYCYTHAEMIA VERA COMPLICATED BY SYPHILIS

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Hormonal or deficiency disease; neoplasm or compensatory hyperplasia? Such is the state of our ignorance regarding the nature of polycythaemia rubra vera, and being so the treatment of the condition must remain empirical. In general the treatment of a case of polycythaemia is limited to the maintenance of a near normal red cell count with, as a rule, consequent symptomatic relief. At the best of times management of a case is not easy, but when the condition is complicated by another disease which can be responsible for symptoms similar to these caused by polycythaemia vera or its complications and control of the blood count no longer brings relief, then the task becomes an unrewarding and disheartening one.

Following is a case report of a patient with polycythaemia vera, complicated by tertiary syphilis:

Mr. J.W., aged 65, was referred to the Radium Institute in April, 1955. Six months before being referred he began to feel a sensation of heaviness and dizziness, especially on bending the head. Headache was severe. About that time he noticed a sudden change in the colour of his face. Until his symptoms developed he was quite pale. Apart from these fairly recent complaints, there was a long-standing history of difficulty in walking, frequency and occasional hesitancy of micturition and trouble with his eyesight. These long-standing symptoms were considered to be due to tertiary syphilis, the infection having been contracted during the 1914-18 war. Examination revealed a man of good build with plethoric appearance. The spleen was palpable below the costal margin, the liver was just palpable. There was evidence of *tabes dorsalis*—Argyll-Robertson pupils were present.

Blood Count.—Haemoglobin, 123 per cent.; red blood cells, 11,000,000; platelets, 420,000; white blood cells, 15,000. Differential: Polymorphs, 74 per cent.; lymphocytes, 13 per cent.; monocytes, 2 per cent.; eosinophils, 9 per cent.;

basophils, 2 per cent. Some nucleated red blood cells were present; p.c.v. 70 per cent.

Blood Pressure.—Systolic, 160 mm. Hg; diastolic, 100 mm. Hg.

In May 1955, 5 millicuries P.32 were given intravenously. On the following month there was no change in the blood count and the patient's symptoms persisted. In July the patient again reported, the red cells now being 6.5 million; by September the cells had dropped to 5.4 million but there was no subjective improvement. In April 1956 the red blood cells had risen to 7.8 million and another 5 millicuries P.32 were given.

In September 1956, when the blood had dropped to 6.4 million, patient was still complaining of dizziness and headache. Another 5 millicuries P.32 were given. Following the last injection of P.32 the blood fell in four months to 4.8 million red cells; haemoglobin 100 per cent., white blood cells 6,400, platelets 195,000. For the first time there was slight relief from symptoms, the headaches and dizziness being a little less severe, but the unsteadiness persisted unchanged.

By April 1957 symptoms had returned to pre-treatment level. Headache and dizziness were again complained of, and now there was pain across the chest. The patient also complained of pain in the legs.

By May 1957 the red cells were again 7 million and a further 5 millicuries P.32 were given. By August the red cells had fallen to 4.3 million. There was no abatement of symptoms.

His *tabes* began to progress. Patient was now very unsteady on his feet. By October 1958 his condition had become pathetic. He had headaches, dizziness, pains in the chest. He had lost the use of his legs and was bedridden. His blood count was now: red blood cells, 6.1 million; haemoglobin, 120 per cent.; C.I., 1; white blood cells, 8,000; platelets, 160,000.

It has been decided not to give any more radiation therapy.

Discussion

Here is a patient who had 25 millicuries P.32 in 2½ years. Although his polycythaemia was slow to react to the therapy, it did eventually drop to 4.3 million red cells. Even at this level there was no abatement of symptoms. This suggests that his complaints were more likely to be caused by the syphilis rather than his blood dyscrasia, as it is most unusual not to get symptomatic relief with a fall in red blood count in polycythaemia, even in the presence of complications common to the condition. Only once was there relief in the course of the disease and that was after the third injection of P.32 when the red cells were down to 4.8 million. This, however, could have been due to a remission in his syphilis for which the latter condition is well known. The association of syphilis and polycythaemia is not unknown. Freund (1919) described two cases which terminated in aplastic anaemia. Whether this was due to a natural transformation from the

polycythaemia or as a result of salvarsan therapy remains speculative.

A case of polycythaemia associated with congenital syphilis was reported by Schulmann and Weismann (1920). The blood count dropped from 12 million to 6 million after neo-arsphenamine treatment.

Summary

A case report is presented of polycythaemia rubra vera complicated by tertiary syphilis. In spite of reduction of the red blood count by P.32 there was no relief of symptoms.

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