A CASE OF LYMPHADENOMA WITH PERIODIC PYREXIA
("PEL-EBSTEIN DISEASE.")

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I am encouraged to publish this case not because I am in a position to contribute any new ideas, but because I think its publication will serve some purpose in drawing attention to a condition which, though well recognized, is comparatively rarely encountered and which offers some points of interest in diagnosis. I venture to think, also, that this particular case is an exceptionally striking example, and in many respects more typical than those which have been previously described. To the Guy's Hospital Reports for 1906, vol. lx, Sir Frederick Taylor contributed a very complete and exceedingly interesting account of "The chronic relapsing pyrexia of Hodgkin's disease." His article includes a reference to the previous literature on the subject, a reference which I have found of the greatest value in enabling me to trace the original descriptions by Pel, Ebstein and others. His detailed description of these cases together with a résumé of the types of pyrexia which are encountered I shall briefly epitomize before referring to the case I have myself had the opportunity to observe.

Sir Frederick Taylor points out that the following types of fever may be encountered in cases of lymphadenoma:—

1. A continuous pyrexia with slight diurnal variations.
2. Alternating periods of pyrexia and normal temperature.
3. Daily variations of temperature (in excess of the normal physiological limits) which are higher in the evening than in the morning.
4. Mixed types. Cases exhibiting at different times temperature phenomena corresponding with more than one of the above-mentioned types.

Ebstein's article, "Chronic relapsing fever, a new infectious disease," was published in the Berl. klin. Woch., 1887, vol. xxiv, pp. 565 and 837, the first article giving a detailed description of the clinical peculiarities of the case, the second that of its termination with the condition found at autopsy. His case was under observation for 238 days, during which there occurred ten attacks of pyrexia each of thirteen to fourteen days' duration with apyrexial intervals of ten to eleven days. An eleventh attack was of longer duration and was followed shortly before death by a brief twelfth attack.

During life an enlarged spleen was identified but no abnormal appearances in the blood, and no enlargement of external lymphatic glands were observed. At the autopsy there were discovered enlarged bronchial, mediastinal and mesenteric glands as well as nodules of lymphoid appearance in
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the lungs, liver, kidneys and spleen. Both liver and spleen were substantially enlarged and both exhibited infarcts.

Pel's case was described actually two years before Ebstein's publication. He referred to his case under the title "Pseudoleukaemia or Chronic Relapsing Fever." At that time the association of pyrexia with Hodgkin's disease was unknown. Again, in Pel's patient, as in Ebstein's, no enlarged external glands were evident although hyperplasia of the spleen, retroperitoneal, mesenteric and bronchial glands was found post mortem.

Pel's idea was that the exacerbations of fever were produced by solid food, a view which nobody else has supported, and one indeed which observation appears completely to refute.

The patient whom I have had the opportunity to investigate was a boy, 17 years of age. (It appears from Taylor's account that this pyrexial variety of lymphadenoma is more frequent under than over 20.) There was no history of any antecedent illness and he was admitted on October 3, 1918, with "influenza." At that time the hospital was inundated with cases of pyrexia all of which, very naturally at that time of epidemic, were in the absence of any distinctive features labelled, provisionally at any rate, influenza, and although it is probable that on his admission the disease from which he was suffering was a mild attack of influenza, no particular attention was attracted or directed to anything which might have suggested the subsequent diagnosis. He was sent to a convalescent hospital on October 15, and twenty-eight days later he was returned with a history of attacks of pyrexia and malaise, of greatly enlarged spleen and of doubtful signs of fluid in the left side of the chest. On his arrival he complained of no symptoms, his temperature was subnormal, no physical signs were present, but the spleen was very definitely enlarged and extended three fingers' breadth below the costal margin.

Three days later the spleen was quite impalpable and in the absence of any other explanation it was thought that the patient was now convalescent from what was a fever of the typhoid group. But on the 22nd there was a recurrence of pyrexia and malaise with gradual but rapid enlargement of the spleen. Pathological investigations instituted at this time gave the following results:

- Total leucocyte count 1,560 per cubic millimetre.
- Differential count: Polymorphonuclears, 47 per cent; lymphocytes; 39 per cent; large monocytes, 12 per cent; eosinophiles, 1 per cent; mast cells, 1 per cent; erythrocytes, 2,675,000 per cubic millimetre; haemoglobin, 52 per cent.
- Blood film showed anochromasia of red cells; otherwise nothing abnormal; urine, nil; blood culture, negative.

It will be observed that resemblance to typhoid fever is again manifest in the leucopenia.

Apart from the enlarged spleen no abnormalities were ascertainable; there was no trace of enlarged lymphatic glands. It will be remembered
that these negative findings were characteristic in the condition described by Ebstein and Pel.

Many chronic infections are capable of producing an irregular sort of fever. "Anomalous typhoid," "anomalous influenza," tuberculosis, malta fever, were all specifically excluded. It may be added that the picture of true relapsing fever differs from that of the condition described, in that the periods of pyrexia terminate suddenly by an unmistakable crisis quite apart from the unequivocal evidence afforded by the spirilla in the blood. Cases of lymphadenoma without any enlarged external glands are sufficiently rare to excuse the failure to diagnose the patient's illness earlier, but once the condition has been recognized it may be said that the occurrence of such periods of pyrexia with corresponding periods of enlargement of the spleen afford a most characteristic picture.

Osier, in referring to this disease says, "in a few rare instances (of lymphadenoma) Pel has described remarkable periods of fever of ten to fourteen days' duration, alternating with intervals of complete apyrexia. They occurred in two of my cases. Ebstein described it as a form of chronic recurring fever. It is probably due to an intercurrent infection." The last suggestion would appear to be indisputable, and bearing in mind the character of the pyrexia one would suspect the parasite to be of a protozoal character. So far as I am aware no supposed infected agent has been identified. During one pyrexial period of the present case, the spleen was punctured and the blood extracted examined bacteriologically but with negative result.

Little further description of the case is necessary. As will be seen from the chart a remarkable regularity of periods of pyrexia and apyrexia on the whole was sustained although the apyrexial intervals were on two occasions only one half the usual duration. During each period of fever the spleen increased in size although not to so great an extent in the last periods observed as in the earlier intervals. During the apyrexial phases the patient always felt quite well and walked about taking ordinary diet and regaining the four or five pounds' weight he had lost during the previous period of pyrexia. So far as I could estimate, his general condition on February 15 was no worse than on his first admission to hospital.

He was transferred in order to be nearer his home, and it is probable therefore that at some future date a further history of the progress of the case will be forthcoming.

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