A CASE OF MENINGOCOCCAL SEPTICÆMIA

BY
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One evening about midnight a coloured member of the East African Pioneer Corps in his early twenties was admitted to a British Military Hospital in Haifa in 1943. He was in coma, breathing was stertorous, there was neck rigidity, head retraction and Kernig’s sign, Brudzinski’s sign and Brudzinski’s identical contralateral index were present as were other signs found in meningitis. He was febrile, T. 104°F. There was no vomiting and no incontinence of feces or urine. The spleen and liver were not felt. There were numerous crepitations in both lungs. Petechiae were not noted but it is unlikely that they would have been observed had they been present in his jet black skin. There was no urethral discharge.

Three days previously the patient had been discharged from another military hospital where he had intermittent pyrexia for which no obvious cause had been demonstrated. He had been regarded as a case for “Malaria Clinical” and given the routine course of anti-malarial treatment obtaining at that time (quinine-mepacrine-pamaquin) with apparently the desired therapeutic result.

On admission our immediate routine investigations in such cases were commenced; these included urine examination, B.P., a total and differential white blood cell count, thick-drops and blood-films examined for malarial parasites, etc., and a lumbar...
puncture with the following results: W.B.C. 20,000/c.mm with marked polymorphonuclear leucocytosis.

Much to our great surprise the stained blood film showed large numbers of extracellular and intracellular diplococci which were meningococci.

No malarial parasites were to be seen.

Lumbar puncture revealed milky cerebrospinal fluid under marked pressure and which showed the typical findings of a purulent meningitis with large numbers of diplococci which were meningococci.

The diagnosis was obviously a meningococcal septicaemia with meningitis. The patient was placed on the D.I.L. 0·3 grammes sulphadiazine were given I.V. and repeated six-hourly. A slow continuous I.V. drip of 5 per cent. glucose saline was set up and 4 per cent. sod. citrate added. Hopes of recovery were at a low ebb but about nine hours after admission the patient was sitting up in bed, rational, with an expansive grin all over his face, the I. V. drip in position and working well and of all things he was smoking a cigarette. He made an uninterrupted recovery with the passage of time. However, for the sake of completeness an X-ray of the chest revealed an area of consolidation in one lung and meningococci were found in his sputum.

It is regretted that blood was not taken for a blood culture although the presence of the numerous meningococci in the blood-film was ample evidence of a blood-stream infection.

Comment.—It is not unlikely that such a remarkable case as this might well have developed the Waterhouse-Friederichsen syndrome. The rapid recovery of the patient under the therapy adopted demands the repeated assurance that the patient’s condition was as described on admission and that he was not just asleep!

The fact that he had been previously diagnosed, and treated, as a case of clinical malaria because of intermittent pyrexia without the demonstration of malarial parasites would suggest that all along he was a case of meningococcal septicaemia—it being well known now that intermittent pyrexia similar to that found in the established case of B.T. Malaria is not infrequent in cases of meningococcal septicemia. Major-General Priest amongst others has drawn attention to that fact.

The word “septicæmia” used to convey to many a very ill febrile patient, but experience shows that in septicæmia any type and degree of pyrexia may be found and in numerous cases of low-grade irregular pyrexia with a patient in just vague ill-health it is not uncommon to find that septicæmia has never been considered “because the patient is not ill enough.” This habit of excluding diseases on the severity or otherwise of signs and symptoms cannot be too strongly condemned. It is so typical of confidence in the inexperienced.

I well remember a young nurse in her early twenties with prolonged irregular pyrexia who was regarded as “neurotic” and suspected of faking her temperature just because the cause of her long-drawn-out irregular pyrexia could not be demonstrated. I need scarcely add that a septicæmia had never even been considered in her case, yet her appendix had been removed as a possible cause of the febrile illness but without benefit. It transpired that several months previously she had recurring bouts of extensive furunculosis. This finally disappeared, but for months afterwards she felt easily tired, sweated a great deal and whilst on duty at nights she found that her temperature was elevated. Low-grade ill-health continued resulting in her reporting sick. Repeated blood
cultures were subsequently negative but our facilities were not very good. The presumptive diagnosis of staphylococcal septicaemia was made in this case with an adequate course of penicillin I.M. was prescribed. She made an uninterrupted recovery and was given a month's sick leave after an adequate spell in hospital. Some time later she was married and she continued in excellent health.

Pitfalls to the unwary in febrile illnesses are staphylococcal and meningococcal septicaemias in which the total white blood cell count may be anything between 4,000/c.mm. to 10,000/c.mm. for quite a long time and where the differential white blood cell count may show at the most a mild polymorphonuclear leucocytosis. With such blood-counts in cases of low-grade irregular pyrexia the enteric group fevers must never be forgotten. It should be more and more realized and emphasized that so-called typical clinical pictures of infectious disease should be diagnosed without difficulty but that it is the so-called atypical cases, i.e. the cases that do not follow typically the textbook description that are usually missed and are therefore a great danger because of the part that they can play in the further spread of the disease—these so-called atypical cases are not as infrequent as some would have us believe.

In the diagnosis of febrile illnesses the ability to think of likely and not unlikely causes at one and the same time as well as the institution of a relevant routine drill to exclude likely and not unlikely causes should be set in motion as rapidly as is relevant. At the same time the medical practitioner should ignore any tendency on his part to exclude diseases on purely clinical grounds alone—on the lack of severity, presence or absence of some sign(s) or symptom(s)—experience shows that to do so is to court disaster. However, such a broad approach to the diagnosis of febrile cases comes from experience—the best teacher of all.

I present this case for publication because of (1) its particular severity and the profound and generalized nature of this infection, (2) the rapid and dramatic response to the therapy adopted and, (3) the fact that previously a diagnosis of malaria clinical—on occasion a dangerous diagnosis to make except in an emergency—had been made and treatment given accordingly when in all probability the diagnosis was really meningococcal septicaemia. This latter diagnosis should never be forgotten in all cases of intermittent pyrexia especially in extratropical patients, and in the tropics or subtropics or wherever malaria may be suspected, when repeated attempts to demonstrate malarial parasites in thick-drops and blood-films, and even after sternal puncture, have failed, although sternal puncture in such cases is not recommended as a routine except in the hands of an expert.

In conclusion, the multiplicity of manifestations and the varying degrees of severity of febrile diseases are stressed and the need for a broad approach to diagnosis, with a true sense of humility as regards the limitations of purely clinical findings in diagnosis and the prime importance of having a “drill” as regards the carrying out, and repetition, of all relevant tests at the earliest and appropriate times in cases of pyrexia of doubtful origin, is emphasized.
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ARMY MEDICAL DEPARTMENT NOTES

(1) HEALTH CONFERENCE

A.D.H. attended the Royal Sanitary Institute Health Congress at Harrogate from May 24 to 28.

The Right Hon. Lord Inman of Knaresborough, P.C., J.P., presided and there was a very large and representative gathering including delegates from almost every country except the U.S.S.R. and Eastern Europe.

Interesting and instructive papers followed by discussions were read at the various conferences and much useful information was obtained.

A new film on Infantile Paralysis (Poliomyelitis) produced by the Ministry of Health was well received by a very large audience and it was stated by Dr. Bradley that this would be available for circulation in about six weeks or two months. The film lays emphasis on early diagnosis, notification and treatment and also deals with the rehabilitation aspect. It should be of assistance to all medical officers who should be given an opportunity of seeing it at an early date.

(2) ADJOURNMENT DEBATE

An adjournment debate upon the suicide of Pte. Robson was held in the House of Commons on Wednesday, April 28. The question of the retention in the Army of men showing signs of instability was raised and the suicide Pte. Robson instanced as one of the possible results of retention of men whose stability can reasonably be doubted on psychiatric grounds. In replying the U.S. of S. fully vindicated the medical care and supervision which this particular man had received. But the incident and the debate have brought to light the reluctance in some quarters to accept the results of psychiatric examination when these issue in a recommendation for discharge. Psychiatrists are accused of helping men to evade service and of accepting at face value tales told to this end. The younger psychiatrists are tempted to yield to such pressure, in spite of clear psychiatric indications, when it is brought to bear by senior officers. Though this attitude does not often end so drastically as in the case of Pte. Robson it has a persistently deleterious effect upon the morale of the Army by retaining men whom form foci of low morale.

(3) THE UNVEILING OF THE MEMORIAL PLAQUE

THE ROYAL MASONIC HOSPITAL

On the afternoon of Thursday, June 10, 1948, The Rt. Honourable Emmanuel Shinwell, M.P., The Secretary of State for War, unveiled the commemorative