Use of Broad-spectrum Antibiotics in Puerperal Infections

Despite attendant hazards, the ease of administration of the broad-spectrum antibiotics makes their routine use in infectious diseases particularly attractive. During recent months it has been noticeable that most cases of puerperal infection referred to us have already been treated with drugs of the tetracycline group. In many instances these will undoubtedly suffice to control infection. Nevertheless an extensive experience has convinced us that a combination of "sulphatriad," 1.5 g., and penicillin, 250,000 units, six hourly for five days is the most effective treatment, and will control all but a small proportion of cases of puerperal infection (Ramsay *et al.*, 1955).

The following case, referred to us late in the course of the disease, illustrates very clearly the risk of indiscriminate therapy with broad-spectrum antibiotics.

CASE REPORT

A primipara aged 25, following a normal pregnancy and delivery, became pyrexial on the fifth day of the puerperium. On the fifteenth day there was thrombosis of the veins of both legs, and three days later bile in the urine. Three

weeks after this there was further thrombophlebitis, affecting the pelvic veins as well as those of the legs. This was followed by severe jaundice. Blood culture repeatedly gave negative results, and agglutination reactions were negative for *Salmonella typhosa* and *S. paratyphosa* A and B, but positive for *Brucella abortus* (1 in 40) and *Br. melitensis* (1 in 80). As further testing showed no rise in titre, these positive findings were considered to be due to a previous infection. The haemoglobin level fluctuated between 60 and 70%, and there was a polymorphonuclear leucocytosis (up to 16,000 per c.mm. with 90% polymorphs). Urine was sterile except on two occasions when *Proteus vulgaris* was isolated. Liver function tests showed both parenchymatous damage (persistent reversal of the albumin-globulin ratio) and an obstructive element (serum alkaline phosphatase, 40–50 units). This may have been the result of: (a) involvement of the portal system in the thrombophlebitic process—a unique complication in our experience; or (b) treatment with anticoagulant and/or drugs of the tetracycline group.

The accompanying chart shows that the patient was treated with a succession of antibiotics; the selection of these was entirely random, as no cervical culture had been made before treatment was started. *Proteus vulgaris* was grown from the cervix after the patient was admitted to our unit, but the dramatic improvement which had already occurred following the belated use of penicillin showed that this was not the pathogen. Whatever the causative organism, it was clearly penicillin-sensitive. Had the drug been used at the outset the patient would have been spared a great deal of unnecessary suffering, with, at one period of her illness, grave risk to life.

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REFERENCE

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Long Incubation Period in Kala-Azar

A patient who presents with fever and splenomegaly will of course be questioned regarding residence abroad; but there is a danger that kala-azar (visceral leishmaniasis) may not be seriously considered in the differential diagnosis if a long period has elapsed since the patient left the endemic area. To emphasize this danger the following two case histories are briefly recorded, for they show incubation periods of at least 2½ years and 1½ years respectively. Sweeney *et al.* (1945) reported a case of Mediterranean kala-azar with "a presumptive latent period of two years," but this is open to question in view of the fact that the patient, an Italian soldier, was taken prisoner in Sicily 14 months prior to the onset of his illness and was detained in Sicily for an unspecified period before being sent to the U.S.A.

CASE REPORTS

Case 1.—A Polish youth went to Southern Italy in 1944, at the age of 19, and remained there for two years. In October, 1946, he came to England, and maintained his usual good health until April, 1949, when he developed fever and lassitude. Four months later he was admitted to hospital, where a diagnosis of kala-azar was made, and he was given two courses of pentamidine injections. Symptoms recurred later and he was admitted to the Hospital for Tropical Diseases, under the care of Sir Neil Hamilton Fairley, in April, 1950. He was found to have a remittent fever, a very large spleen, and a moderately enlarged liver. The haemoglobin was 46%; red cells, 2,360,000 per c.mm.; white cells, 1,200 per c.mm. (neutrophils 38%); total serum protein, 9.7 g. per 100 ml. (albumin 2.6 g., globulin 7.1 g.); formol-gel test strongly positive. The diagnosis was confirmed by spleen puncture, Leishman-Donovan bodies being found in stained films.

Case 2.—An Indian aged 23 left Bombay on May 19, 1952, in order to study in England. On February 7, 1954, he developed fever and malaise, and eight days later he was admitted to the Hospital for Tropical Diseases, under the care of Professor A. W. Woodruff; there he was found to have a remittent fever and a spleen which was just palpable on inspiration. The haemoglobin was 78%; red cells, 4,100,000 per c.mm.; white cells, 2,900 per c.mm. (neutrophils 40%); total serum protein, 7.1 g. per 100 ml. (albumin 4 g., globulin 3.1 g.); formol-gel test negative. The diagnosis was confirmed by sternal puncture; no Leishman-Donovan bodies were found in stained marrow smears, but leptomonads were cultured after 15 days' incubation on N.N.N. medium at room temperature (22° C.).

COMMENT

Kala-azar must be considered in the differential diagnosis of fever and splenomegaly even if a period as long as 2½ years has elapsed since the patient was in an endemic area. The diagnosis should not be ruled out if spleen or marrow smears prove negative; a culture on suitable medium at room temperature must always be carried out in addition. Case 2 demonstrates this point, together with the fact that the formol-gel test may be negative in the early stages of the disease.

I am indebted to Sir Neil Hamilton Fairley and to Professor A. W. Woodruff for permission to publish these cases; also to Dr. D. S. Ridley for the pathological investigations.

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