Disseminated Tuberculosis Complicated by Pancytopenia

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M D, woman aged 46

History: Admitted in May 1970 with a month's history of fever and loss of weight. No past history of tuberculosis or liver disease.

On examination: She was very ill, temperature 38°C, pale, slightly icteric, with a faint purpuric rash over the trunk and legs, and smooth hepatomegaly without splenomegaly or lymphadenopathy.

Investigations: Hb 10·3 g/100 ml; MCHC 31%; total WBC 4,000/mm³ (neutros. 84%, lymphos. 14%, monos. 4% and occasional metamyelocytes and myeloblasts); platelets 3,000/mm³; sternal puncture showed generalized hypoplasia; serum bilirubin 1·8 mg/100 ml; serum alkaline phosphatase 350 IKA units/100 ml; serum AsT 66, AlT 31 i.u./100 ml; prothrombin time 18 sec (control 16 sec); serum albumin 2·6, globulin 3·6 g/100 ml with raised α_1 and γ-globulin fractions; blood urea 40 mg/100 ml; chest X-ray showed a suggestion of fine miliary mottling.

Treatment and progress: Liver biopsy, carried out four days after admission under cover of intravenous phytomenadione and infusion of platelet-rich plasma, but complicated by massive hæmorrhage, showed non-reactive miliary tuberculosis. Immediate treatment included streptomycin, INAH, rifampicin and steroids. Increasing hepatic and renal failure followed but responded to conservative measures. Streptomycin and rifampicin were withdrawn. For three weeks the patient received INAH and steroids alone. Pyrexia and thrombocytopenia returned, but a further remission was induced by rifampicin and ethambutol. Cultures of *Myco. tuberculosis* from liver biopsy, laryngeal swabs and urine were highly sensitive to all standard antituberculous drugs. Jaundice returned but settled on withdrawal of prochlorperazine and reduction in rifampicin dosage. A third bout of jaundice was associated with a positive immunodiffusion test for hepatitis-associated antigen (HAA). Nine months after admission there is no evidence of liver disease, blood disease or tuberculosis. She continues on INAH, rifampicin and ethambutol. HAA is no longer detectable.

Comment

The diagnosis of disseminated tuberculosis was made on liver biopsy which is the most helpful diagnostic investigation in so-called 'cryptic' tuberculosis (Brunner & Haemmerli 1964, Weinberg 1969). When disseminated tuberculosis is associated with leukæmoid reactions or pancytopenia, it is commonly of the non-reactive type (O'Brien 1954) and carries an almost 100% mortality (Glasser *et al.* 1970). It is generally believed that in this situation the leukæmoid reactions and pancytopenia are primary blood disorders with opportunist mycobacterial infections. Our patient had histologically and bacteriologically proven non-reactive tuberculosis with pancytopenia, and antituberculous treatment has led to apparent cure. In our opinion the initial tuberculous infection was responsible for the pancytopenia.

REFERENCES
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Chronic Typhoid Abscess of Body Wall

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Miss M S, aged 69. Housekeeper

History: Had typhoid fever in England in 1944. Her recovery was complicated by a painful swelling over a rib on the right side in the early convalescent period. This subsided without discharging and she had no further symptoms until October 1967 when she presented with a tender mass in the right iliac fossa. Barium studies were normal and at operation an intermuscular abscess of the body wall was evacuated, but no pathogenic bacteria were cultured from the pus. Subsequently the swelling recurred on several occasions and she developed a discharging sinus which was explored operatively in January 1970. The sinus track, which appeared to end on a rib, was excised with a portion of the rib. Histology of the rib was normal and again no pathogenic bacteria were cultured. After a period of remittent pyrexia a further painful abscess of the right abdominal wall appeared in August 1970. Widal's reaction was positive and *Salmonella typhi* was cultured from the pus when it was drained. The organism was not present in the stools or urine and there was no radiological evidence of osteitis of the vertebræ or ribs. Cholecystogram showed a normally functioning gall-bladder, but attempted bile culture failed. She was treated with ampicillin for a month and with Septrin for six months, since the organism showed *in vitro* sensitivity to both these agents. There is now no evidence of recurrence of her abscess and no sinus is present. Stool and urine cultures remain negative.

Typhoid fever is seen occasionally in this country, but some of its manifestations are very