CARDIAC PRESENTATION OF INFECTIOUS MONONUCLEOSIS

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INFECTIOUS MONONUCLEOSIS HAS LONG BEEN recognized as a disease of protean manifestations, but cardiac presentation has not been reported in the British literature to date.

Case report

Mr G. W., schoolmaster, aged 41 years, presented on 26 August 1965 with a seven-day history of attacks of central chest pain which lasted up to an hour. He had been woken from his sleep in one attack and noted that he was sweating and short of breath. Between the attacks of pain he had felt reasonably well and the day before had done some quite energetic work in his garden.

Physical examination revealed no abnormalities, but it was felt that he had sustained a myocardial infarction in the recent past. An electrocardiograph showed inverted T waves in the standard leads, a flat S–T segment in a VL, inverted T wave in a VF, elevation of the S–T segment in v1, 2, and 3 with slight 'pericarditic bowing' and inversion of T waves in v4, 5, and 6. He was admitted to hospital.

Serum glutamic-oxaloacetic transaminases on 28, 29 and 30 August were 50, 62 and 64 units respectively and these readings seemed to confirm the clinical suspicion that the patient had had a myocardial infarction. Routine blood counts however, showed that he had a leucocytosis of 16,500, of which 83 per cent were lymphocytes, four per cent were monocytes and only 13 per cent were neutrophils and the ESR was only 1mm. in one hour (Westergren). The blood film was reported as showing some atypical cells and the possible diagnosis of a lymphoma was suggested.

The patient was treated with bed rest and general nursing care as if he had had a myocardial infarction and he did not experience any more chest pain, but he developed a mild sore throat with slight pyrexia after a week which settled within four days. No unusual appearance of his mouth or throat which might have, in retrospect, been regarded as suggestive of infectious mononucleosis were noted, nor was any enlargement of cervical lymph nodes recorded.

After two weeks in hospital the electrocardiograph showed a flat S–T segment in lead 1, an upright T wave in a VL, and a more normal looking S–T segment in v1 and 2, and the serum glutamic oxaloacetic transaminase level had fallen to 30 units. Ten days later the T wave inversions in his electrocardiogram had disappeared and the patient was mobilized a little and investigated further. X-ray of his chest showed normal lung fields and a heart shadow of normal size and shape, and screening of the chest showed normal cardiac pulsations. Examination of aspirated bone marrow fluid showed normal red and white cell formation, but the Paul-Bunnell test on his serum was positive, showing a titre of 1 in 320 of heterophil antibody. Liver function tests showed a serum glutamic-pyruvic transaminase level of 140 units and a serum alkaline phosphatase of 22 units as the only abnormal values.

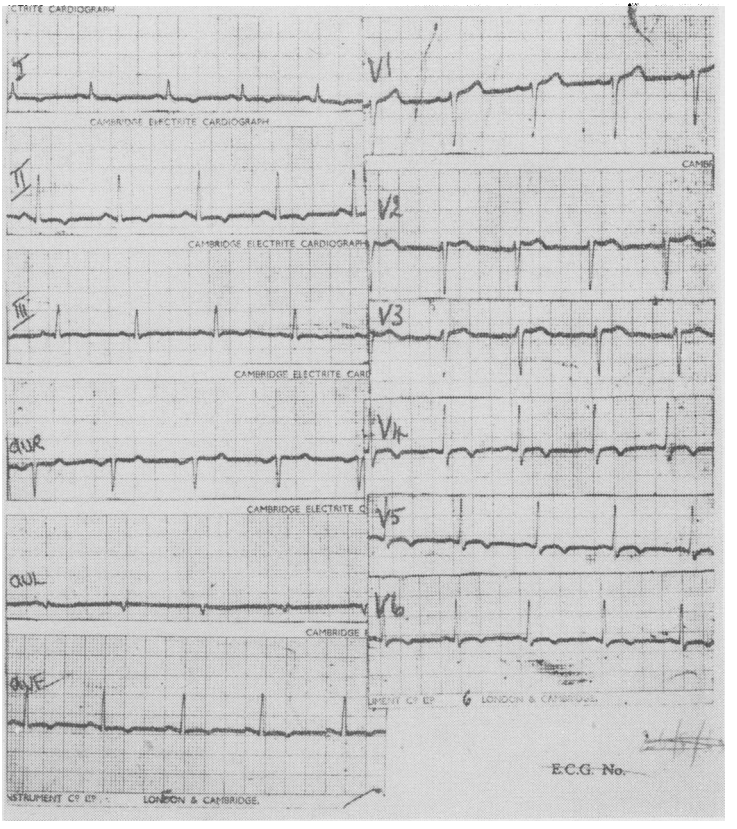
The patient was allowed home after four weeks in hospital and a month later

had no complaints. At this time an electrocardiograph showed a normal tracing and the blood picture and serum enzyme levels had returned to normal values.

Discussion

The patient's undoubted cardiac presentation led to his being treated as a case of myocardial infarction and the serum transaminase levels tended to strengthen this diagnosis although the T wave changes in all leads of the electrocardiograph were suggestive of a generalized pericardial or a subepicardial lesion and there were no pathological Q waves. The differential white cell count and film and the positive Paul-Bunnell test would seem to confirm that the patient had infectious mononucleosis at this time, indeed they are the only valid evidence for diagnosis of the condition.

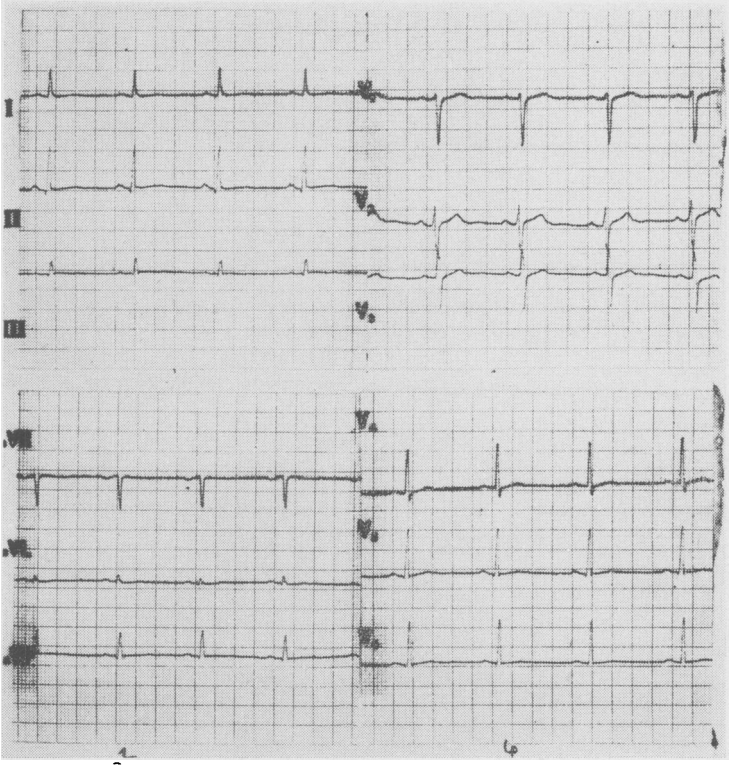
The benign clinical course and relatively rapid return to normal of the electrocardiogram would seem to justify the diagnosis of acute pericarditis with infectious mononucleosis as the etiological factor, as virus studies were negative and no other cause could be found or has subsequently appeared. Celice *et al.* (1956) described a similar case in a youth



ECG 1

of 17 years in 1956 and in their review of the literature could only find a dozen cases where there were cardiac symptoms or signs and in only one of these could one say that the presentation was cardiac. Webster (1957) reported five cases of myocardial or pericardial involvement in the course of infectious mononucleosis in one of which, a man of 57, the presentation was with cardiac pain, and Gardner (1959) described a patient with infectious mononucleosis who presented with acute pericarditis. Wilson *et al.* (1961) from Toronto, described what must be a unique case of constrictive pericarditis following infectious mononucleosis. Their patient developed the full blown syndrome of constrictive pericarditis over a period of four months associated with the accepted haematological and immunological features of infectious mononucleosis and at operation it was found that the visceral layer was causing the constriction, and its removal from the surface of both ventricles and right atrium led to clinical improvement and eventual recovery. Histological examination of the removed tissue showed only non-specific chronic inflammatory changes.

Burch *et al.* (1964) of Tulane University reviewed the American literature on pericarditis due to infectious mononucleosis and they noted that of the 20 cases reported almost all were males under 30 years of age.



ECG 2

They comment on the severity of the chest pain complained of by the patients, and in this connection it is of interest that D. R. Smith (1964) in describing the mononucleosis-like syndrome in patients who had undergone open-heart surgery, does not mention chest pain of any sort in his listed symptomatology. Dunnett (1963) reviewed a large series of hospital cases in this country and no cardiac presentations were noted.

Colonna and Salinas (1965) reviewed the world literature when they reported their case of "acute benign pericarditis" which was found to have a mononucleotic blood picture and a heterophil antibody titre of 1 in 224, and they do not quote a case from the British literature.

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FACULTY REPORT

INFANT FEEDING IN EAST SCOTLAND

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THIS INVESTIGATION HAD TWO OBJECTIVES. The first was to confirm the observation that breast feeding is becoming the exceptional rather than the usual method of feeding a baby. The second was to study the factors involved in this situation. Most practitioners would agree that breast feeding is the preferable method of feeding an infant and its decline contains a potential threat to the community. Our study is in the nature of a reconnaisance investigation designed to produce facts which could be used in an attempt to reverse this trend.

Material and methods

The first step was to design a form for recording the particulars of the