A CASE OF MASSIVE HÆMOPERICARDIUM WITH RECOVERY AFTER PARACENTESIS

BY

A. S. RAJASINGHAM

From the General Hospital, Colombo

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A young woman, aged 20 years, was admitted to the General Hospital, Colombo, under my care on June 4, 1938, with a history of having received a blow with a fist on the front of her chest the previous day. As regards her previous history, she had had pneumonia four years before and some attacks of malarial fever. She had not been in good health during the preceding six months, and attributed this to a recent pregnancy which had ended in an abortion at the fourth month.

On admission she was pale and dyspnoëic. Her pulse rate was 100 and low in volume and tension. The respiration rate was 48 per minute. The lungs were resonant and the air entry was normal, with no adventitious sounds. The heart sounds were feeble and muffled. The apex beat was not palpable. Percussion of the heart revealed a large area of dullness, extending from the left axillary line to the right mid-clavicular line. A hæmopericardium was suspected. There were no injuries to the sternum or ribs. The liver and spleen were not enlarged. There was an enlarged lymphatic gland in the left axilla. This gland was excised subsequently and the pathologist reported that it was one of tuberculous adenitis with caseation. A radiogram (Fig. 1) was taken, and the radiologist reported that the appearances suggested a large pericardial effusion. The diagnosis of hæmopericardium was confirmed by Dr. H. O. Gunewardene also, who kindly saw the case in consultation.

On the following day the condition of the patient was slightly worse. There were periodical exacerbations of dyspnoëa while she remained propped up in bed. An ice-bag to the chest and morphia gave her some relief. On the third day her pulse rate was 120, and dyspnoëa continued. Paracentesis was decided upon and performed, and six ounces of dark sanguineous fluid was aspirated. Dr. de Saram, the pathologist, reported that the aspirated fluid was blood and that it contained no organisms and no pus cells. The patient felt slightly relieved after aspiration, and it was followed by a gradual slowing down of the pulse and respiratory rates. Her temperature, which was slightly raised at first, became rather higher for four or five days and then began to subside (Fig. 2).

FIG. 1.—Radiogram taken shortly after admission to hospital showing a large pericardial effusion and a small hydrothorax at the left base.

FIG. 2.—Chart of morning and evening temperatures.

On the advice of the Senior Physician, Dr. J. R. Blaze, nothing further was done, apart from keeping her on sedatives. The area of cardiac dullness diminished from day to day and in a week it was nearly normal (Fig. 3). At

FIG. 3.—Teleradiogram (two metres) taken about a week after aspiration.

the end of a fortnight it was quite normal, and this was confirmed by a two-metre radiogram (Fig. 4).

The patient left hospital on August 17 completely cured, with a normal pulse rate and no murmurs. She was seen three months later in good health and was quite able to attend to her household duties.

FIG. 4.—Teleradiogram (two metres) taken about two weeks after aspiration.

DISCUSSION

The case is of unusual interest because a large hæmopericardium or a large hæmorrhagic pericardial effusion had been caused by a blow which produced no external injuries.

The rapid absorption of a considerable amount of blood in the pericardial sac, determined clinically by the reduction of the extensive area of dullness almost to the normal limits of cardiac dullness within a week after the aspiration, strongly suggests that the pericardium was in a previously healthy condition. The presence of a tuberculous gland may suggest the possibility of a tubercular pericardium, but the complete return to its normal limits as shown in the second two-metre radiogram (Fig. 4) puts this possibility out of court.

The source of bleeding is a matter of conjecture. There was no evidence of hæmophilia or other blood disease.

The pathologist's report on her blood was as follows :—

Bleeding time : $2\frac{3}{4}$ minutes.

Coagulation time : 3 minutes.

White blood corpuscles : 8,800 per c.mm.

Red blood corpuscles : 3,430,000 per c.mm.

Differential count : Polymorphs, 74 per cent.

Lymphocytes, 23 per cent.

Eosinophils, 3 per cent.

Judging from the steadily progressive nature of the bleeding it was reasonable to surmise that there was bruising of the parietal and visceral layers of the pericardium. There might have been a sub-serous contusion of the musculature of the heart. The latter is, however, unlikely owing to the absence of any effects afterwards.

The successful treatment of this case by aspiration shows that operative treatment is not essential in every case of traumatic hæmopericardium, and that the prognosis is sometimes better than that suggested by Price (1937). Natural arrest of bleeding probably takes place when the intra-pericardial pressure reaches a certain point, and it is therefore probably wise to temporize with sedatives and an ice-bag to the chest in the hope of arresting hæmorrhage. If cardiac distress is nevertheless acute and progressive, operative treatment would be necessary.

SUMMARY

1. A case of traumatic hæmopericardium without external injuries is reported.

2. Treatment by aspiration was successfully carried out.

Note by Editor. Gunewardene (1934) reported a case of a boy whose chest was crushed by a bullock cart. He returned to school and was able to play games without any pain or other symptoms. Eleven days later he com-

plained of some præcordial pain and fell down dead. There was a recent rupture of the left ventricle and it was thought to be a tear in the previously damaged muscle. Barber (1938) reported two somewhat similar cases where death took place after 4 weeks and after 6 weeks respectively.

Mayer (1936) reported seven cases seen in hospital in a period of two years. Most of them were stab wounds: in three the bleeding came from stab wounds of the left ventricle, and in three there was thought to be an anterior mediastinal hæmatoma. Five of these cases recovered and two recovered without surgical treatment, as in the case reported here.

REFERENCES

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