should be considered as a possible cause of pain in Behçet's disease. Treatment is discussed.

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Medical Memoranda

Murmur over Liver in Cases of Severe Anaemia

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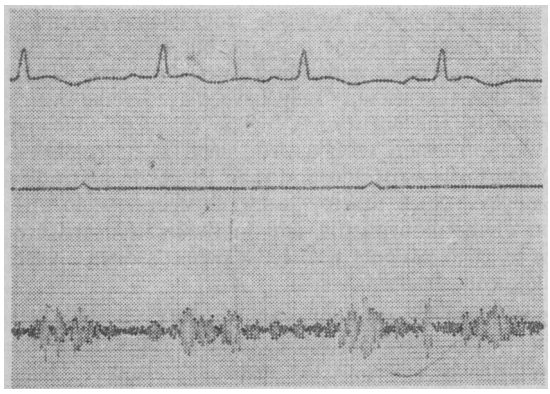
A murmur may be audible over the heart and blood vessels in cases of anaemia. A systolic murmur was heard over the liver in three cases of severe anaemia. To our knowledge no reference to such a murmur has been made previously.

CASE REPORTS

The patients were female aged 38, 40, and 12 years suffering from nutritional macrocytic anaemia with ankylostomiasis, nutritional macrocytic anaemia, and thalassaemia. The chief complaints were weakness, pallor, palpitation, exertional dyspnoea, and dependent oedema. Their haemoglobin levels varied from 1.45 to 2.9 g./100 ml. The pulse was of water-hammer type and the rate varied between 120 and 130 a minute. The respiratory rate was 20 to 26 a minute. Their blood pressures were 60/0, 115/45, and 110/40 mm. Hg. The neck veins were very distended. The sites of apical impulse were the fifth intercostal space 1 cm. outside the midclavicular line, left sixth space 2.5 cm. outside the midclavicular line, and left fifth space on the midclavicular line. One patient had a diastolic gallop. There was no murmur in peripheral vessels. In two patients a soft systolic murmur was heard over the pulmonary area. Their electrocardiograms did not reveal any significant abnormality. The liver was non-pulsatile, tender, and enlarged to 3–4 fingerbreadths below the right costal arch. It was soft in two cases and firm in one. There was a systolic high-pitched murmur over the liver, best heard about 2.5 cm. below the costal arch in the continuation of the right midclavicular line. Application of pressure over the area by the chest-piece of the stethoscope made the murmur a little louder. A phonocardiogram taken in one of the cases recorded the systolic murmur (see Fig.).



Phonocardiographic record of murmur over the liver.

In the first case transfusion of 300 ml. of whole blood precipitated pulmonary oedema. Partial exchange transfusion of 400 ml. of concentrated red cells with simultaneous withdrawal of 500 ml. of blood saved her. The other two patients had a very slow transfusion of 200 ml. of concentrated red cells. With transfusion of blood the patients became less dyspnoeic, their pulse rates came down, blood pressures improved, the size of the livers diminished, and the murmurs disappeared within a few hours.

COMMENT

The murmur was probably produced in the hepatic artery owing to accelerated circulation of blood through it as a manifestation of hyperkinetic circulatory state. After appropriate blood transfusion along with improvement of the circulatory state, the size of the liver was reduced and the murmur disappeared.

The murmur was best heard over the liver about 2.5 cm. below the costal arch in the continuation of the right midclavicular line. This site suggests that the origin of the murmur was in the hepatic artery. The murmur was not a transmitted one from the heart or the abdominal aorta, as in none of these cases was there a murmur in the abdominal aorta and that heard over the pulmonary area was never very pronounced.

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