

tal cartilage. Under rest and treatment with iron she completely recovered.

But it is a great and yet common mistake to consider that they are limited to such individuals, and the clinician soon discovers murmurs in cases where no abnormality of the blood exists.

CASE III.—A young woman who suffers from well marked exophthalmic goitre. Functional murmurs consisting of vascular ones in the neck and a well marked systolic one in the pulmonary area are present, and yet the blood count shows the red corpuscles to number almost five millions and the haemoglobin to be 80 per cent.

CASE IV.—A. B., medical student, aged 22, complains of palpitation of some weeks duration, has been working hard at his books and feeling run down and is losing weight. Two weeks ago he felt faint and consulted a medical man who told him he had heart disease with enlargement of that organ, and gave him tablets containing digitalis and nitroglycerin to take frequently. He has been distinctly worse since then and the palpitation has been very troublesome. No special shortness of breath and no swelling of the feet. He does not smoke nor drink. Present condition is a pale, anxious, thin youth with cold extremities, has lost twelve pounds in the last year, pulse rapid and slightly irregular, cardiac impulse is marked all over the precordium and a good deal of pulsation is present in the epigastrium which troubles him much. Apex beat is one inch below normal and half an inch outside of the nipple line. There is a loud bruit du diable in the neck. At the apex the first sound is impure but there is no conduction of the impurity into the axilla. At the base there is a loud systolic murmur and accentuation of the pulmonary second sound. The blood is normal, tongue foul. A diagnosis of functional heart trouble was made. He was put on a mixture containing strychnin and, when his digestion improved, on malt and cod liver oil and later on plain cod liver oil. He steadily improved and in six months all the murmurs had disappeared and he had gained eleven pounds in weight. That was three years ago and he has not relapsed in spite of hard work.

Yet one author writes thus (H. A. Hare, *Practical Diagnosis*, p. 289): "Having found that there is a murmur and *from the absence of anaemia* that it is due to organic cardiac disease, it is now necessary to determine at what orifice, etc." The italics are ours. There the reader must assume that if he can exclude anaemia in a given case of heart murmurs then the disease must be organic. It is on the other hand a common experience to meet with cases of even pernicious anaemia where no impurity of the cardiac sounds can be detected.

CASE V.—Mrs. C., widow, aged 70 is suffering from a chlorotic condition in that her haemoglobin keeps between forty and fifty per cent but