

case book reads: "The murmur is heard with difficulty at the aortic cartilage, and not at all in the axilla or at the apex."

The second case is entirely different to the preceding, but still presents a similar problem to be solved.

CASE II.—Annie M., aged 21; a general servant, lately out from Ireland, was admitted to hospital on the 6th day of the fever.

When a child she had had measles, scarlet fever, chicken pox, and whooping cough; since when she had always had good health. But the past four months she had found herself breathless on exertion; dizzy at times; and troubled with palpitation.

On admission, she was found to be in a good state of nutrition. Her face, the mucous membranes of the mouth, and the surface of the body generally, were very pale. There was visible pulsation of the carotids; and under the finger nails, and through the mucous membrane of the lips, could be seen a capillary pulse. The abdomen was tumid, with no complaint of pain on palpation; the bowels constipated; the tongue of the ordinary typhoid type. No spots were visible. The superficial area of cardiac dulness was enlarged, measuring $3\frac{1}{2}$ inches transversely, with the apex beating $\frac{1}{2}$ inch inside and under the nipple. Over the upper part of the sternum could be heard a systolic blowing murmur, propagated up the neck, and across the upper part of the chest to the left axilla; but not heard at the apex.

The pulse was semi-collapsing, 102 to the minute, regular in volume and rhythm; temperature, 103° ; respirations, 24. Examination of lungs found them normal. The liver measured 3 inches vertically in the right mammillary line. The spleen was not enlarged.

Three days later, characteristic typhoid spots began to appear; and the next day the spleen was noted as enlarged. But, on the third day after admission (the 9th of the fever), a faint systolic murmur was heard at the heart's apex. It increased in strength for a day or so, becoming quite marked, and co-existing with the original murmur. This persisted for some days. The first sound of the heart was also almost inaudible. The case ran a favorable course and normal temperature was reached on the 20th day.