

tr. of digitalis, also pulv. jalapæ co., ʒss. each morning. The examination was made on Thursday. On Friday and Saturday the patient did not appear to be doing well. On Sunday he was not seen. On Monday I found him much worse. On Saturday night he coughed up a considerable quantity of blood; since that time he has become rapidly weaker. Wishing to be more certain in the diagnosis, as well as to try and relieve the rapid breathing, I drew off a quantity of fluid from the side. It was made up entirely of bloody serum, and resembled very much the serum which surrounds a coagulum.

My attention was then directed to the possibility of an aneurism of the thoracic aorta, but could yet see no sign of one. Patient died on Monday about midnight. Post mortem made 14 hours after death.

The left pleural cavity was filled with coagulated blood and bloody serum. The lung, although much smaller than normal, was not so small or carnified as is often the case in chronic pleurisy.

On examining the aorta, a dilatation was discovered at the junction of the descending portion of the arch, and the thoracic aorta proper.

The aneurism was large and irregular, and extended some distance down the aorta. Two ruptures were found, one into the lung substance, and one into the pleural cavity.

A large clot existed in the upper part of the lung, which connected with the rupture of the aneurismal sac.

The heart was small, otherwise normal. The right lung was also healthy.

The history of this case shows the difficulty of making a diagnosis of an aneurism extended into the back part of the thorax. It is possible that if a more careful examination had been made of the upper and anterior part of the left side, a bruit might have been discovered. I am confident that none could be heard over the posterior surface.

I am reminded by this, of a somewhat similar case which occurred in Guy's Hospital. The aneurism had destroyed the bodies of the vertebræ, and by pressure on the spinal cord, produced paraplegia. The presence of the an-

eurism was not made out until the post mortem revealed it.

It is probable that in the case given a previous pleurisy had existed, owing to the presence of the aneurism, and that a serious rupture took place on the Saturday evening into the lung substance, when the blood was coughed up. This rupture into the pleural cavity probably occurred during Sunday or Monday. The flow of blood into the cavity would not be so rapid on account of its having previously been partially filled with serum. How long the aneurism had been in existence, it is difficult to say, but most probably during the last few weeks this dilatation had been rapid, as shown by the loss of voice, and there being no hypertrophy of the heart.

Selections: Medicine.

THE SLOW PULSE AND DISTURBANCES IN THE RHYTHM OF THE PULSE.

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A pulse of 60 or less is usually pathological. Occasionally we meet with cases in which the pulse-beat in health is habitually below 60, but such examples are infrequent.

The following schema, taken from Dr. T. Lauder Brunton's book on the "Experimental Investigations of the Action of Medicines, Part I. Circulation," London, 1875, exhibits the causes of slow action of the heart as determined by experiment on animals, and if you will keep this before you, you will find that it will assist you in the explanation of many cases in which a slow pulse is observed:

A.—Irritation of vagus roots: 1. Directly by the action of an excitant, drug, or pain. 2. Indirectly by increased blood-pressure. 3. Indirectly by increased CO₂ in blood. 4. Reflexly by irritation of some other nerve.

B.—Irritation of vagus ends in the heart.

C.—Increased excitability of vagus ends in the heart.

D.—Weakness of the heart: 1. Paralysis of cardiac ganglia. 2. Paralysis of muscular fibres of the heart. 3. Degeneration of muscular fibres of the heart.

A slow pulse is a prominent or important