SEQUEL OF A CASE OF CARDIOLYSIS.

BY

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IN the *BRITISH MEDICAL JOURNAL* of December 14th, 1912, was published a case of cardiolytic.

A boy of 15, who appeared to be at the point of death from cardiac failure, supposed to be secondary to adhesions of the pericardium to the heart muscle and to surrounding tissues and organs, was operated upon by Mr. Barling on June 17th. Every method of treatment had previously been tried but had failed to relieve him.

At the operation about 14 in. of ribs over the praecordial region were removed and adhesions to the sternum and ribs were broken down. Good results were almost instantaneous; four days later the pulse, which had always been from 100 to 120 per minute, fell to 60. Diastolic bruits which had been audible could no longer be heard, and the only systolic murmur audible was over the mitral orifice.

Three weeks later it was noted that, though his pulse was irregular, he was comfortable and much less cyanosed than formerly. His breathlessness had vanished, he was able to walk up and down stairs, oedema had disappeared from his legs, and the marked ascites was no longer existent. The improvement was quite remarkable, and continued until the end of October, when he gradually began to fail.

All the old symptoms reappeared, and, though he was treated continuously either in the General or the Jaffray Hospital, nothing could be done for him. Death occurred at the end of March. A very careful *post-mortem* examination was made for me by Dr. Parsons and Mr. Haycraft, and the result of their examination, for which I am greatly indebted to them, is as follows:

POST-MORTEM NOTES BY LEONARD G. PARSONS, M.D.,
AND J. B. HAYCRAFT, F.R.C.S.

External Appearances.—The body was very thin and wasted. The face was cyanosed. The abdomen was distended and discoloured, and there was some oedema of the legs, chiefly on the left side. Over the praecordium there was a large depression and a semilunar scar where the ribs had been resected by surgical operation.

Thorax: Universal adhesions; many of the adhesions were oedematous, broke down easily, and looked fresh; others were dense and firm. The heart and pericardium were extremely large, measuring 6 by 5½ in., with marked recent and old adhesions to the chest wall, to the operation scar, and to the lungs. The pericardium is universally adherent to the heart, and can be separated in patches only, and that with the greatest difficulty. The heart cavities are considerably dilated. There is a slight thickening of the mitral cusps (some functional regurgitation). The other valves are quite normal in appearance. The heart muscle is quite pale and very flabby, and showed marked hypertrophy. Left ventricular wall ¾ to 1 in. thickness. The pericardium is very adherent to the diaphragm, and there are marked adhesions around the inferior vena cava and round the superior vena cava and the venae innominae. All these veins, together with the jugulars, were very distended with blood. The left internal jugular measured 1 in. in width. These veins were traced along their whole extent, and no constriction or stenosis was found, even where they were enveloped in fibrous tissue.* The left lung was considerably retracted. There was a fair amount of straw-coloured fluid in each pleural sac, and there were many adhesions. Both lungs showed marked oedema, and the lower lobe of the right lung was consolidated. The pulmonary veins throughout the lung seemed distended, and their walls showed up very distinctly; they did not appear to be distended.

Abdomen: On opening the abdomen there was an escape of a large amount of clear, yellowish-coloured fluid. The inferior vena cava was full of blood and markedly distended. The renal veins were in a similar condition. The stomach and duodenum were healthy. The intestines were normal.

Liver: There is some perihepatitis, and on section there is a definite, although small, increase in fibrous tissue. The liver on section shows a well-marked nutmeg character. It is free from adhesions to other organs and to the diaphragm.

Pancreas: Healthy.

Kidneys: Right, 3½ oz.; left, 4 oz. They showed some congestion.

The *spleen* was enlarged, firm in consistence, of a dark red colour, and congested and also showed a mild degree of peri-splenitis.

The *suprarenals* were enlarged and of a purplish colour.

* The inferior vena cava showed the smallest calibre when passing through the diaphragm. There was no stenosis beyond that point, and it opened into the auricle by a very large mouth. The Eustachian valve was very prominent, and the right muscle very dilated.

Microscopical Examination.

Liver: The capsule showed some degree of thickening, and there was a slight increase of fibrous tissue round the portal tracts with some spread into the lobules. In a few places there was some small-celled infiltration, and the liver columns were separated by oedema and congestion.

The *kidneys* showed some degeneration of cells of the convoluted tubules, and some early fibrous change affecting the vessels and glomeruli.

Spleen: Definite fibrosis of capsule, trabeculae, and vessels.

The *suprarenals* showed patches of small-celled infiltration, and the medulla was of more open structure (? oedema) than normal.

So far as I know this is the first time the sequel of a case of cardiolytic has been recorded, and the results are not only very interesting but may have also a very important bearing upon treatment. In addition they do, to a certain extent, justify the opinions I hazarded as to the causation of symptoms when the pericardium is adherent to structures in the mediastinum.

They show, moreover, the accuracy of the observations of Sir Thomas Barlow, who had noted the dilatation of the jugulars in similar cases, and of Professor Keith, who suggested that the symptoms were largely due to the posterior adhesion. To both of these gentlemen I am greatly indebted for their letters and their interest in my case. They justify, I think, my guess that the ascites and the cyanosis might be due to the nipping of the inferior and superior cavae respectively, for though no stenosis of the former was found, it is expressly stated that the smallest calibre of the vein was found in its passage through the diaphragm.

The disappearance of practically all the bruits which had been audible over the whole cardiac area was remarkable, and justified the opinion that they were due not to endocardial changes but to distortion of the relations of the valves and the heart cavities.

What the bearing of the *post-mortem* evidence on future surgical methods may be I cannot say, and perhaps it would be unwise to generalize from a single case, but it is difficult not to think that, if there are evidences of pathological adhesions to the diaphragm, it would be wise to try to divide some of them. It is, I think, material to this point to remark that the operation has been always done in cases in which there is no possibility of improvement by means other than surgical, and that if death results, as, so far as published cases show, it never has resulted, from operation, it will anticipate by only a few days or weeks death with all the distressing symptoms of breathlessness, sleeplessness, and mental misery.

There can be no question that in my case the operation was worth doing, for it gave the patient a good six months of pleasant life and comfort before the recurrence of distressing symptoms began.

**AN ANALYSIS OF A SERIES OF CASES OF
HYPERTENSION AND HYPOTENSION
TREATED AT VITTEL.**

BY

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I LOOK upon the sphygmomanometer as just as important an instrument in the diagnosis and treatment of chronic ailments and diseases as is the thermometer in acute ones. The interpretation of blood-pressure readings, however, is a far more complicated problem than is that of making one's deductions from the varying height of the thermometric column.

My first experiences of the use of instruments for measuring the hydraulic phenomena of circulation were those early investigations of Dr. George Oliver. From that time onwards I employed at irregular spells one or another of the numerous instruments for measuring arterial tension. In 1903 I was driven by a very serious attack of cyclic synovitis for treatment at Vittel, where I entirely recovered, and since 1904 have reversed my condition from patient to physician at that spa. During the last nine seasons, therefore, a large number of patients have passed through my hands.