literature of which we are not always aware, the review by Mchedlishvili serves an important purpose in contributing to what will eventually be a better understanding of the control of the cerebral circulation.

Seymour S. Kety, M.D.

References

The Great Truth

Science seems to me to teach in the highest and strongest manner the great truth which is embodied in the Christian conception of entire surrender to the will of God. Sit down before fact as a little child, be prepared to give up every pre-conceived notion, follow humbly wherever and to whatsoever abysses Nature leads, or you shall learn nothing. I have only begun to learn content and peace of mind since I have resolved, at all risks, to do this.—Huxley.
struction, and can sometimes be demonstrated by angiocardiography.

Beta-sympathetic blocking drugs may have a place in the treatment of cyanotic attacks in Fallot's tetralogy, and possibly in the long-term management of the patients in whom total correction has not yet been undertaken.

Acknowledgment

We wish to thank Dr. G. W. Hayward, Dr. D. Weitzman, Mr. O. S. Tubbs, and Mr. I. M. Hill for permission to study patients under their care. This work was done while one of us (D. A. C.) was in receipt of an Aylwen Bursary. Pronethalol ("Alderlin") was supplied by the Pharmaceutical Division of Imperial Chemical Industries, Ltd.

References


“Brights Disease”

By Richard Bright—1827

There has not yet, perhaps, been sufficient time, since this disease of the kidneys first attracted attention, to say to what extent life may be prolonged while the body is under its influence; but I believe, with care, its fatal effects may be kept at bay, and a hazardous life may be protracted for many years. Should that care be neglected, the chance of life will be greatly diminished.—Original Papers of Richard Bright on Renal Disease. Edited by A. ARNOLD Osman. London, Oxford University Press, 1937, pp. 98-99.

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Contributions of Science

The science teacher should always teach that science has made two fundamental contributions to modern life: it has given man the choice between want and abundance; and it has freed him from irrational fear. Man has not quite conquered fear, but through science he has freed himself from the tyranny of ancient superstition and is gradually coming to understand his own inner fears. The scientific conception of the nature of the world and of man can free man's mind just as the scientific control of matter and energy has freed his hands.—ROBERT J. HAVIGHURST, Sch. Sci. and Math. 44, 120 (1944).
Summary

A quantitative analysis was made of hearts with tetralogy of Fallot without operative procedures, with pulmonary atresia, with total repair, and with old Potts anastomosis and total repair. Useful data thus obtained were as follows:

In simple tetralogy the left ventricle has a tendency to volume atrophy. The tricuspid orifice has a tendency to be smaller than normal.

In tetralogy with pulmonary atresia, the aortic orifice has a tendency to be larger, and the mitral orifice smaller than in ordinary tetralogy.

In tetralogy after total repair, the heart is increased in weight 24 to 48 hours later probably related to manipulation of the right ventricle. The tricuspid and aortic orifices have a tendency to be smaller than previously, probably related to the technic of closure of the ventricular septal defect. This is not the case where an aortopulmonary anastomosis has been previously done before total repair.

References


Auricular Fibrillation

The development of knowledge about auricular fibrillation illustrates the close interdependence of clinical medicine and experimental work. Auricular fibrillation, long familiar to physiologists was first recognized in man by Cusnhy and Edmunds in a case under their care in 1901 and published in 1906, the fibrillation being ascribed to vagal inhibition; but their diagnosis of fibrillation was received with doubt. In 1902 Mackenzie had recognized the complete irregularity of the pulse now known to be characteristic of auricular fibrillation, and on the ground of the absence of the auricular wave in the jugular tracings argued that the auricles had ceased to contract and were paralyzed. In 1907 he abandoned the idea of paralysis, as in some cases at any rate the muscular fibres of the auricles were found by Keith to be hypertrophied, and argued that the auricular and ventricular contractions occurred simultaneously as the result of irritability of the auriculo-ventricular node, and called this "nodal rhythm." In 1910 Rothberger and Winterberg, and Lewis, by means of the electrocardiograph, proved that the auricular condition was one of auricular fibrillation.—Sir Humphry Davy Rolleston. The Harveian Oration. Great Britain, Cambridge University Press, 1928, p. 108.

Stokes-Adams Syndrome

J. B. Morgagni in 1761 mentioned two men aged sixty-eight and sixty-four years with slow pulse rates, one "twenty-two within one-sixtieth part of an hour," dating from the time they were "first attacked with epileptic paroxysms, beginning from the belly"; Heberden in 1768 described a pulse seldom above thirty associated with torpidity; Andrew Duncan described the same events in 1793; Bright in 1831 recorded the clinical features of a case with a necropsy showing a much enlarged heart. The condition was called maladie de Stokes-Adams by Huchard after the two Irish physicians, Robert Adams and William Stokes, who gave accounts of it in 1827 and 1846 respectively and laid much stress on fatty degeneration of the myocardium; indeed, they transferred to that condition many of the symptoms of complete heart-block. This of course was long before Gaskell's physiological explanation (1883) of heart-block which is usually, but not invariably, primarily responsible for the syndrome.


William Harvey: The Pulmonary Circulation

On one occasion the body of a hanged highwayman was brought to the institute of anatomy in London from the place of execution.

Harvey proceeded as he had planned. Only one blood vessel was allowed free connection with the outside—this was the inferior vena cava—into which he inserted a tube which in turn was attached to a cow's bladder filled with water. He could press as hard as he liked. The right ventricle and auricle expanded to the point of rupture, but no water trickled through into the left ventricle. Then he untied the ligature from the pulmonary artery: The water flowed freely across the lungs into the pulmonary veins, from there across the left auricle into the left ventricle and out, through the hole he had cut into it.

Harvey never made this public among the "general community of scholars," but described it in a private letter to a London colleague.—Tibor Doby, M.D. Discoverers of Blood Circulation. From Aristotle to the Times of Da Vinci and Harvey. New York, Abelard-Schuman, 1963, p. 219.
IDIOPATHIC MYOCARDIAL HYPERTROPHY

gen-storage disease of the myocardium with obstruction to left ventricular outflow. Circula-


graphic and vectorcardiographic findings in idiopathic hypertrophic subaortic stenosis. Am.

24. Wigle, E. D., Chrysou, A., and Bigelow, W. G.: Results of ventriculotomy in muscular

"Some General Remarks"

By Richard Bright—1827

From the observations which I have made, I have been led to believe that there
may be several forms of disease to which the kidney becomes liable in the progress of
dropsical affection: I have even thought that the organic derangements will authorise
the establishment of three varieties of diseased structure, generally attended by a
decidedly albuminous character of the urine.—In the first, a state of degeneracy seems
to exist, which from its appearance might be regarded as marking little more than
simple debility of the organ. In this case the kidney loses its usual firmness, becomes
of a yellow mottled appearance externally; and when a section is made, nearly the
same yellow colour slightly tinged with gray is seen to pervade the whole of the cortical
part, and the tubular portions are of a lighter colour than natural. The size of the kidney
is not materially altered, nor is there any obvious morbid deposit to be discovered. . . .

The second form of diseased kidney is one in which the whole cortical part is con-
verted into a granulated texture. . . . This in its earliest stage produces externally, when
the tunic is taken off, only an increase of the natural fine mottled appearance given by
the healthy structure of the kidney; or under particular circumstances, gives the appear-
ance of fine grains of sand sprinkled more abundantly on some parts than others. On
making a longitudinal section, a slight appearance of the same kind is discovered inter-
nally, and the kidney is generally rather deficient in its natural firmness. . . . When
this disease has gone on for a very considerable time, the granulated texture begins to
show itself externally, in frequent slight uneven projections on the surface of the kidney;
so that the morbid state is readily perceived even before the tunic is removed. The
kidney is generally rather larger than natural. . . .

The third form of disease is where the kidney is quite rough and scabrous to the
touch externally, and is seen to rise in numerous projections not much exceeding a
large pin's head, yellow, red, and purplish. The form of the kidney is often inclined to
be lobulated, the feel is hard, and on making an incision the texture is found approach-
ing to semicartilaginous firmness. . . . It appears in short like a contraction of every
part of the organ, with less interstitial deposit than in the last variety. . . .

Although I hazard a conjecture as to the existence of these three different forms of
disease, I am by no means confident of the correctness of this view.—Original Papers
of Richard Bright on Renal Disease. Edited by A. Arnold Osman. London, Oxford
EBSTEIN’S ANOMALY


Marcello Malpighi: 1628-1694

When Malpighi submitted his doctor’s thesis, in which he made condemning remarks about Galen and the great Arab physicians Avicenna and Rhases, the thesis was not accepted. At the second attempt he fared no better, although he had modified the text considerably.

When there was nothing left which could be considered offensive, the thesis was finally accepted. In fact, it had been somewhat embarrassing to twice fail the most brilliant student. The other students were in sympathy with Malpighi—they knew that the reason for his failures certainly was not the poor opinion held of the candidate’s abilities.

However, Malpighi was not to rejoice for long. Some of the professors were not reconciled to the fact that the tranquillity of one of Europe’s most ancient universities should be disturbed by an inquisitive, doubting doctor who harbored suspicions against the ancient philosophers.

They succeeded in having his diploma taken away from him. He was only able to get it back after a lengthy struggle.—Tibor Doby, M.D. Discoverers of Blood Circulation. From Aristotle to the Times of Da Vinci and Harvey. New York, Abelard-Schuman, 1963, p. 223.
An additional protective factor lies in the anatomic arrangement of the tricuspid papillary muscles. The large anterior and small conus papillary muscles of the tricuspid valve are relatively constant in position, but the posterior muscle, which arises from the diaphragmatic wall of the right ventricle, is represented by a group of muscles that are inconstant in number and position. Furthermore, each of the papillary muscles attaches to two adjacent leaflets of the tricuspid valve, and, even should rupture occur, the resultant tricuspid insufficiency might not be clinically significant unless dilatation of the annulus supervened. Clinical signs of rupture of a mitral papillary muscle, with the pulmonary capillary bed behind the insufficient valve, are likely to be much more dramatic.

Summary

A case of rupture of a tricuspid papillary muscle due to myocardial infarction, apparently the first to be reported in the English literature, is presented. Anatomic, physiologic, and pathologic reasons for the rarity of such a rupture are advanced.

References


Clinical Observations

The great Book of Nature, which is alike open to all, and is "incapable of deceiving," I have hourly read, and I trust not wholly in vain. During the first twelve or fourteen years of my professional life, I recorded almost every case which occurred to me either in private practice, or in the chief conduct of an extensive charity. When afterwards the multiplication of common examples seemed to me an unnecessary waste of inestimable time, which might be much more profitably employed, I contented myself with the more useful task of recording chiefly such cases, or, on a few occasions, such particular circumstances only of cases, as led to the establishment of principles. This I have generally done on the spot, or rarely deferred beyond the day of observation, always rejecting what, on repeated and varied inquiry, I have not been able fully to verify.—Preface. Collections from the Unpublished Medical Writings of the Late Caleb Hillier Parry, M.D.F.R.S. Vol. I., London, Underwoods, Fleet-Street, 1825, p. 47.
myocardial inflammation or other cardiac difficulties has subsided and, except for the persistent block, our patient is in excellent health.

**Summary**

Hemodynamic effects of varying heart rate and activity have been studied in a young woman in good health except for complete heart block. As cardiac rate was increased from 50 to 110 beats per minute by means of an external cardiac pacemaker, cardiac output and stroke volume were found to reach maximum values at a rate of 75. Stroke volume increased 43 per cent with exercise when heart rate was fixed at 68 beats per minute. The ability of this patient to increase stroke volume with exercise, in contrast to average normal subjects, may be related to her past experience with chronically increased volume loads on the heart secondary to heart block.

**References**


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Epilepsy from Palpitation of the Heart.—Mrs. C., aged between 40 and 50, who had been for many years subject to coughs with violent spitting of blood, and copious expectoration, attended with a quick and full pulse, all of which were often relieved but never wholly cured, was also often attacked with fits of palpitation of the heart. In the month of October 1809, her cough being better than usual, she had for many days more or less of the palpitation, accompanied with a sense of fulness and throbbing pain in her head. One day, while she was in an upholsterer’s shop looking at new mahogany furniture, the smell of the oil, which was very disagreeable to her, produced a great increase of palpitation, which was soon followed by convulsions, foaming at the mouth, and all the other symptoms of epilepsy. She was soon relieved by blood-letting, Citrate of Potash in the state of effervescence with Squill, and purgatives. . .

On the 15th of November following, she experienced for two days a threatening of the epileptic symptoms. A violent degree of palpitation of the heart produced a throbbing pain and confusion in the head, accompanied with loss of memory. . .

The symptoms were relieved in the manner before related; and to this day, June 1813, the patient has suffered no relapse of the disease.—*Collections from the Unpublished Medical Writings of the Late Caleb Hillier Parry, M.D.F.R.S. Vol. I.*, London, Underwoods, Fleet-Street, 1825, p. 415.

Timelessness of Learning

Very late in life, when he was studying geometry, someone said to Lacydes, "Is it then a time for you to be learning now?" "If it is not," he replied, "when will it be?"—DIOPHANTUS OF ALEXANDRIA, in The Lives and Opinions of Eminent Philosophers.