ology of the circulating system that may be correlated with susceptibility to atherosclerosis. It is interesting to note, for example, that reptiles possess two aortic arches while birds and mammals possess but one. It is also interesting to note that arterial pressures in Amphibia and reptiles are approximately one half that of birds and mammals. Nothing is known of the fate of arterial elastic lamellae with age in reptiles, a study that might be very informative. Whatever the type of study may be, it is entirely possible that analysis of arteries prior and subsequent to the phylogenetic appearance of atherosclerosis may give us valuable clues applicable to understanding of and ultimate control of human atherosclerosis.

ALBERT I. LANSING

References


The Early History of Instrumental Precision in Medicine

Even those among you given to reading the authors of the end of the last and the first twenty years of the present century, may be surprised to learn that statements of the numbers of pulse and respiration are very rare in Rush, Cullen and their contemporaries. Heberden and Falconer who, perhaps, set too much value on pulse counts, made no impression on their contemporaries. In Corvisart on the Heart we hear little or nothing in this direction, and in seven hundred pages of Laennec there is one pulse count and no numeration of the breathing. It seems incredible; but not until the later French school developed its force do we find in reports of cases the beginnings of those systemic numerations of the breath and pulse which are met with in modern cases. . . . It was not until a later day, and under the influence of the great Dublin school, that the familiar figure of the doctor, watch in hand, came to be commonplace.—S. WEIR MITCHELL, M.D., Transactions of the Congress of American Physicians and Surgeons, Second Triennial Session held at Washington, D.C., 1891. New Haven, The Congress, 1892, p. 179.
Cardiac Hypertrophy

There are many cases of hypertrophy, and of great hypertrophy of the heart, in which during life and after death no source of increased work can be discovered. The degree of enlargement found in many hearts in which there is a valve defect, such as aortic regurgitation or mitral stenosis, is sometimes out of all proportion to the apparent increase of burden. There is still much that remains to be explained; it is clear that there must be hidden sources of increased work, or the conclusion that increased work is the cause of hypertrophy needs revision.—Sir Thomas Lewis. Diseases of the Heart. New York, The MacMillan Company, 1933, p. 106.
EFFECTS OF ANGIOTENSIN


It is a sound rule rarely to diagnose conditions that occur rarely.—Sir Thomas Lewis.

Summary

Precordial scanning of the distribution of radioiodine (I\textsuperscript{131}-labeled iodide) in patients with myocardial infarction has been suggested by others as a means of delineating the infarcted area.

Attempts to localize radioiodine in 14 precordial scans of 12 patients with myocardial infarction resulted in the demonstration of localized areas of radioactivity in seven scans. This collection of radioactivity was found to be within the stomach, resulting from the normal concentration of radioiodine that occurs in gastric secretions.

References


Thomas Sydenham
1624–1689

Thus it was that Sydenham came to seem to his contemporaries “the English Hippocrates.” Unquestionably his medical art and science had in many respects the characteristics of a reaction, and Sydenham regarded himself as a Hippocratist. Like Hippocrates, the basic principle of his medical thinking was the humoral pathology, and like Hippocrates his general outlook upon illness was that it was a natural healing process. Nevertheless there lay a whole world between the two. The decisive difference between them becomes plain in respect of their divergent outlook upon illness as soon as they quit the domain of the general. Hippocrates recognized only disease, not diseases. He knew only sick individuals, only cases of illness. The patient and his malady were for him inseparably connected as a unique happening, one which would never recur. But what Sydenham saw above all in the patient, what he wrenched forth to contemplate, was the typical, the pathological process which he had observed in others before and expected to see in others again. In every patient there appeared a specific kind of illness. For him maladies were entities, and his outlook upon illness was, therefore, ontological. Hippocrates wrote the histories of sick persons, but Sydenham wrote the history of diseases.—Henry E. Sigerist, M.D. The Great Doctors. New York, W. W. Norton & Co., Inc., 1933, p. 181.


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On Permanent Patency of the Mouth of the Aorta, or Inadequacy of the Aortic Valves

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The morbid affections of the valves and aorta permitting this regurgitation are the following.

1st, The valves may be absorbed in patches, and thus become reticulated and present holes, through which the blood flows back into the ventricle...

2nd, One or more of the valves may be ruptured; the ruptured valves, when pressed, flapping back into the ventricle instead of catching and supporting the column of blood in the aorta, the blood then regurgitating through the space left by the broken valves...

3rd, The valves may be tightened or curled in against the sides of the aorta, so that they cannot spread across its mouth; and an opening is then left between the valves, in the centre of the vessel, through which the blood flows freely back into the ventricle...

4th, The valves without any proper organic lesion may be rendered inadequate to their function by dilatation of the mouth of the aorta. The aorta, affected by aneurism, or dilated, as it frequently is in elderly persons, about its arch, will sometimes have the dilatation extending to the mouth of the vessel, and in such a case, the valves become inadequate to their function, not from any disease in themselves, but from the mouth of the aorta dilating to such a diameter, as to render the valves unable to meet in its centre; the blood then, as in the other instances, regurgitates freely into the ventricle.

Circulation, Volume XXIV, December 1961
The demonstration at cardiac catheterization of a difference in arterial oxygen saturation between the upper and lower body and the confirmation by dye-dilution technics or angiocardiography of the coexistence of a left-to-right ventricular shunt and a right-to-left arterial shunt establish the presence of obstruction between the outflow tract of the left ventricle distal to the ventricular septal defect and the entry of the ductus into the aorta.

The hemodynamic situation produced when ventricular septal defect and coaractation of the aorta form part of more complicated combinations of defects is discussed briefly.

References

Great Men

In the experimental sciences, great men are never the promoters of absolute and immutable truths. Each great man belongs to his time and can come only at his proper moment, in the sense that there is a necessary and ordered sequence in the appearance of scientific discoveries. Great men may be compared to torches shining at long intervals, to guide the advance of science. They light up their time, either by discovering unexpected and fertile phenomena which open up new paths and reveal unknown horizons, or by generalizing acquired scientific facts and disclosing truths which their predecessors had not perceived. If each great man makes the science which he vitalizes take a long step forward, he never presumes to fix its final boundaries, and he is necessarily destined to be outdistanced and left behind by the progress of successive generations. Great men have been compared to giants upon whose shoulders pygmies have climbed, who nevertheless see further than they.—Claude Bernard. An Introduction to the Study of Experimental Medicine. New York, The MacMillan Company, 1927, p. 42.


Nature, Science and Understanding

I believe most simply in the nobility of this great effort to understand nature, and (understand) what we can of ourselves, that is science. I hope, less simply, that it may be a brave and worthy chapter of man's history to cope, with a full awareness of the frailty of his institutions, of his society, and of himself, with the new problems and new choices that this knowledge has opened. For, if we do not treasure the great inheritance on which all our work and life are based, and understand the radical novelty and the gravity of the situation in which we find ourselves, there will be few of our children to ask again of the need for new knowledge.—DR. ROBERT OPPENHEIMER. The American Scientist, Vol. 47, p. 212A, September 1959.


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Religio Medici

Think not thy time short in this World since the World it self is not long. The created World is but a small Parenthesis in Eternity and a short interposition for a time between such a state of duration, as was before it and may be after it.—SIR THOMAS BROWNE. Religio Medici, 1642. Edited by W. A. Greenhill, M.D., Oxon., London, MacMillan and Co., Limited, 1950, p. 230.
Summary

Direct communication of a pulmonary artery with the left atrium is described and considered a variant of pulmonary arteriovenous fistula.

A 3-year-old girl presented with clinical evidence of a lesion of the central nervous system. The history revealed that she had been cyanotic and had had clubbing of the digits and polycythemia. A rounded mass was noted in the region of the right pulmonary hilus in the posteroanterior thoracic roentgenogram. A pulmonary arteriovenous fistula was suspected, but the patient succumbed with a cerebral abscess before definitive diagnostic studies and therapy were undertaken.

Anatomic examination revealed an unusual variant of pulmonary arteriovenous fistula, namely, direct communication of the right lower pulmonary artery with the left atrium and absence of the middle and lower lobes of the right lung.

It is important that pulmonary arteriovenous fistulas be suspected clinically, since definitive diagnosis and therapy are now possible. While the hemodynamic effects of this type of lesion are usually not severe, untreated patients suffer a high morbidity and mortality through systemic arterial oxygen desaturation, paradoxic embolization, cerebral abscess, and rupture of the fistula.

References


From the materialistic and the energetic standpoint alike, carbon, hydrogen, and oxygen, each by itself, and all taken together, possess unique and preeminent chemical fitness for the organic mechanism. They alone are best fitted to form it and to set it in motion; and their stable compounds, water and carbonic acid, which make up the changeless environment, protect and renew it, forever drawing fresh energy from the sunshine.

We have seen that there is no absolute truth apart from mathematical principles; in all natural phenomena the principles from which we start, like the conclusions which we reach, embody only relative truths. The experimenter's stumbling block, then, consists in thinking that he knows what he does not know, and in taking for absolute truths that are only relative. Hence, the unique and fundamental rule of scientific investigation is reduced to doubt, as great philosophers, moreover, have already proclaimed.—Claude Bernard. An Introduction to the Study of Experimental Medicine. New York, The MacMillan Company, 1927, p. 49.