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Transition of Coronary Arteries to Bony Canals (1761)
Morgagni—Letter the Twenty-Fourth

16. In an old man, who was of a lean habit, and whom I dissected in the month of December of the year 1743, the pulse had been weak and small. . . .

As I examin'd the external surface of the heart, the left coronary artery appear'd to have been chang'd into a bony canal, from its very origin to the extent of many fingers breadth, where it embraces the greater part of the basis. And part of that very long branch, also, which it sends down upon the anterior surface of the heart, was already become bony to so great a space, as could be cover'd by three fingers plac'd transversely.—From MORGAGNI, JOHN BAPTIST: De Sedibus et Causis Morborum per Anatomen Indagatis. 1761. (Translated by Benjamin Alexander, 1769).
Minuscule Review


The author has investigated the effect of a single dose of heparin intravenously in a small group of patients with myocardial infarction—randomly selected from matched pairs—on the serum free fatty acids (FFA) and occurrence of arrhythmias. The patients receiving heparin had mild to moderate increments in FFA, no systematic change in plasma catecholamines, and no increased incidence of serious arrhythmias. High levels of plasma noradrenaline appeared to be predictive of an increased problem with arrhythmias.

The paper is concise and the “Introduction” refers to key articles pertaining to the interrelationships of high FFA, catecholamines, and arrhythmias, together with the effect of heparin on these interactions.

H.B.B.

NOTICE FOR 1971

Letters to the Editor will be published, if suitable, and as space permits. They should not exceed 500 words in length and may be subjected to editing or abridgement. Address letters to Dr. Charles K. Friedberg, Room 555, 2 East 103rd Street, New York, N. Y. 10029.

Charles K. Friedberg
Editor in Chief
Murrie W. Burgan
Assistant Editor
Quotations from Reports in the Enlightenment Period of the Nature of Neurohumoral Transmitters Pertinent to Recent Nobel Awards

"The active substance [extracted from various kinds of nerves] gives catechol reactions and bears near relations to adrenaline, but differs characteristically from this in the following respects. . . ."

"From the experiments it is inferred that the active substance is the physiological transmitter of adrenergic nerve action in mammals and identical with nor-adrenaline."


"Our earlier work [1959] has shown that sympathetic nerve endings or neighbouring structures take up and bind circulating catecholamines. In this communication we have demonstrated that stimulation of these nerves releases tritiated noradrenaline which was taken up previously from the circulation. This indicates that the neurohumour, noradrenaline, can be taken up from the blood-stream, bound and then released on stimulation."-From Hertting G, Axelrod J: Fate of tritiated noradrenaline at the sympathetic nerve-endings. Nature 192: 172, 1961.

". . . to report to you some of the experiments which my colleagues, especially Drs. Paul Fatt and Jose del Castillo, and I have been engaged in during the past 8 years."

"We were attracted by the mechanism of the neuro-muscular junction, the place where a wave of excitation reaches the minute peripheral endings of a motor nerve cell, and where it is transmitted without fail to the comparatively huge muscle fibre, across a specialized membranous contact area which we call the synapse.

". . . we can be fairly confident that the primary event in our chemoreceptor action is an alteration of ionic permeability. But when we begin to ask: what is the nature of the chemical change, which must undoubtedly precede this effect, we find ourselves still very much in the dark."—From Katz B: Micophysiology of the neuro-muscular junction: The chemo-receptor function of the motor end-plate. Bull Hopkins Hosp 102: 275 and 296, 1958.

Reviews for the Clinically Oriented

100 Years Ago

First Volume of St. Thomas's Hospital Reports
On Wounds of the Heart (p 272) James F. West

The first of St. Thomas's Hospital Reports contains a detailed review of cardiac wounds reported in the literature to that date and several case reports, one being associated with a slow recovery and later, death from an apparent constrictive pericarditis. Pulmonary tuberculosis was also present at the postmortem examination. An excerpt from the summary of suggested treatment is printed below.

H.B.B.

"Locally the wound should be interfered with as little as possible; dry lint and strapping, the application of collodion, or the antiseptic plan of Lister, would seem to be the most suitable kinds of dressing.

"When the precordial dulness is very extensive and when from the indistinctness and apparent distance of the heart's sound it is evident that a large quantity of the serosity of the blood, or at a later period of the serous effusion of pericarditis or in a more remote stage, when it is probable that a collection of pus exists in the pericardium, it will be expedient to draw off the fluid, either by a small trocar, as in the operation of paracentesis pericardii or by passing a sharp-pointed probe through the newly formed cicatrical tissue intervening between the lips of the wound."

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early pulmonary vascular disease. Thus, corrective operation in infancy would be highly desirable. Our patient weighed only 6.8 kg. Since we are accumulating encouraging experience with open heart surgery in infants weighing 3 to 4 kg, we propose that the infant with the Taussig-Bing malformation have corrective operation performed as soon as the diagnosis can be established.

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Thermal regulation during acclimatization in a hot, dry (desert type) environment. Amer J Physiol 163: 585, 1950


*et docendo discimus*

It should be the chief aim of a university professor to exhibit himself in his own true character—that is as an ignorant man thinking.—WHITEHEAD AN: Aims of Education. New York, Mentor Books, 1949, p. 26.
## Book Reviews Published in CIRCULATION Volume 42 (July-Dec.), 1970

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Words to Inspire

Preface To The First Edition (1930)
HEART DISEASE—PAUL DUDLEY WHITE, M.D.

... It is my hope that it will be of much service to students and practitioners of medicine, and that it will stimulate here and there an impelling curiosity to study further some of the obscure problems which are mentioned in almost every chapter. Concentrated effort to break a new path, or to widen one already begun, into the unknown boundaries of our knowledge will at least yield enjoyment, and may even afford the satisfaction of some new and useful discovery. The joy of the practice of medicine lies not only in service to others and in the intellectual pleasure of the work, but also in the realization that we are still but pioneers.—PAUL DUDLEY WHITE: Heart Disease. New York, The Macmillan Company, 1946.
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diographic method for directly determining left 
ventricular stroke volume in man. Circulation 
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Localized disorders in myocardial contraction. 

100 Years Ago

Dickens as Diagnostician

What a gain it would have been to physic if one so keen to observe and so facile 
to describe had devoted his powers to the medical art. 
Minuscule Reviews

Of Two Papers in Advances in Internal Medicine—Vol. 16—1970


The authors are known to have had a long-time interest in the nature of intraventricular block and their clinical insights and experimental data have helped to elucidate the problems thereof. Their review of the problem is clear and concise and after an introductory paragraph, there are sections, subtitled, Species Differences, Sites and Extent of Intraventricular Block, Nomenclature and Criteria, Definition, Divisional (Ramus, Fascicular) Block, “Bilateral Bundle-Branch Block,” Incomplete Bundle-Branch Block, and Conclusions. The most detailed review is contained in the section on Incomplete Bundle-Branch Block. Evidence is marshalled to indicate that the peripheral ramifications of the conduction mechanism behave as a syncytium and that there is no longitudinal isolation of fibers in the main bundles in the dog’s heart. There are no illustrations and this might blunt the interest of some readers, but in the 78 references listed, there are made available sources of graphic data. Since a brief historic perspective is given, I would have liked to have seen Fahr’s work mentioned (Arch Intern Med 25: 146, 1920) which clearly analyzes sequential vectors and right and left bundle-branch block are correctly designated.

At this time when there is renewed interest in intraventricular conduction aberrations, spirited discussions regarding nomenclature and the continuing clarification of issues through the recording of His bundle potentials and myocardial potentials revealing the excitatory wave fronts in the ventricles. This short review of Wennemark and Kossmann should engage the attention of, and be profitable reading to, many cardiologists.

H.B.B.

Burchell HB: Surgical approach to the treatment of ventricular pre-excitation (p 43).

One of the most difficult things for a person who has pioneered a technic or a form of therapy is to evaluate with full objectivity the overall results at a later date.

Dr. Burchell has presented the various aspects relating to the surgical treatment of symptomatic Wolff-Parkinson-White arrhythmia. This is of great importance since several reports have testified to the fact that surgery can be performed successfully in selected patients with disabling, and otherwise uncontrolled, tachycardias. However, emphasis on the potential causes of failure was necessary to prevent indiscriminate use of a procedure with definite risks. Surgeons should be aware that a “Kent” bundle need not always be present. Its anatomical location is not the same in all patients. For this reason Dr. Burchell stressed that ground rules had to be established to justify future surgical ventures.

Since the field of conduction disturbances is moving at a jet-age speed, certain points would have required more emphasis if the subject had been written at the same time as this review. The effects of atrial pacing, the value of His bundle recordings, and certain additional refinements in technic would have been emphasized.

AGUSTIN CASTELLANOS

Circulation, Volume XLII, December 1970
Minuscule Review


The proceedings of the Hering-Breuer Centenary Symposium are now available as part of the Ciba Foundation Symposium Series. This volume summarizes most of the recent work on the nervous control of breathing, particularly as mediated through afferent pathways and through receptors in the lung and thorax. The articles by Guz, Godfrey, Noble, and Howell and their associates dealing with the effect of selected nerve blocks on respiratory pattern, response to CO₂, and the sensation of dyspnea are especially interesting and illustrate the emphasis of the symposium. This book will be of interest to anyone dealing with the problem of breathlessness and is essential reading for those engaged in research on the regulation of respiration.

Richard Kronenberg, M.D.

100 Years Ago

Graphiques de la respiration après la section des nerfs pneumogastriques