

Essay Reviews

JOHN A CALLAHAN, DWIGHT McGOON, and JACK D. KEY (eds.), *Classics of cardiology*, vol. 4, 2 pts, Melbourne, FL, Robert E. Krieger, 8vo, pt. 1, pp. xvii, 581, illus., \$52.50; pt. 2, pp. xvii, pp. 583–1077, illus., \$45.00.

Classics of cardiology, volume 4, is a continuation of a fine collection entitled *Cardiac classics* published in 1941 by Dr Frederick A. Willius, an eminent cardiologist and medical historian, and Thomas E. Keys, reference librarian and medical historian, both at the Mayo Clinic. The elegantly-published original volume, which included biographical sketches of the various authors, contained 52 contributions by 51 authors, and was republished in two volumes (paper) in 1961, and again in 1983 (cloth) with no change in the original content. But for reasons unstated, *Cardiac classics* now became *Classics of cardiology*. Also in 1983, a third volume was published (authors John Callahan, Thomas E. Keys, and Jack D. Key) which added 47 “classics” with commentary, beginning with Roentgen (1895) and ending with Sarnoff and Berglund (1954).

Now comes volume 4 in two parts by Dr Callahan (cardiologist), Dr McGoon (surgeon), and Jack D. Key (research librarian and medical historian). Whatever Willius and Keys had in mind when they brought out the original *Cardiac classics*, the alteration of the title and division into 4 volumes and 5 books is bound to raise cataloguers’ hackles and, perhaps, to confuse the occasional reader. But the five books contain material (195 articles in all) that is of more than passing interest to the historian of medicine and science who seeks to identify the strange collection of forces that sometimes bring forth what the press misrepresents as “Breakthroughs” or “Great leaps forward”, on the one hand, and discoveries that have indeed “profoundly affected the practice of medical and surgical cardiology”, on the other.

In choosing items to be included in volume 4 (they range in date from 1933 to 1976), the authors understandably adopted a shot-gun approach instead of the more precise target rifle. But it follows that some of their choices—perhaps only a few—will turn out to be contributions of lasting value. One advance of impressive dimensions was the development of a reliable and effective pump-oxygenator which made open-heart surgery feasible. This, in turn, opened the door to more effective surgical correction of congenital cardiac defects; valvular surgery, including replacement with prosthetic valves; surgery of large arteries; and various forms of coronary by-pass. The second part of volume 4 contains articles that are mainly of medical, as opposed to surgical, significance, including diagnostic methods and extensive reference to several aspects of the problem of coronary disease.

The emphasis in volume 4 is clearly on surgical and medical technology; and the authors at no time claim to have included *all* items that may, or may not, turn out to be classics of cardiology in the future. But the historian of medicine and of science must look beyond the technological aspects of cardiology to the broad effect a given discovery may exert on the profession and the population it serves. This, in turn, places one-on-one medical and surgical care (personal health services) in abrupt contrast (and regrettably often in conflict) with the care of the health of the millions. Within this expanded arena, volume 4 of *Classics of cardiology* is considerably less than ideal.

Every clinician in the western world whose experience goes back 30 or more years is well aware of the virtual disappearance of acute rheumatic fever and its fellow-traveller, mitral stenosis. He must also be aware that this immensely important clinical event did not happen merely by chance: it was anticipated by the work of Massell, Dow, and Jones (‘Orally administered penicillin in patients with rheumatic fever’, *J. Am. Med. Assoc.*, 1948, 138: 1030); but the definitive work was a short article that appeared 30 years ago, bearing the title ‘Prevention of rheumatic fever. Treatment of the preceding streptococcic infection’ (Denny, Wannamaker, Brink, Rammelkamp, and Custer: *J. Am. Med. Assoc.*, 1950, 143: 151–3). This single study has medical and social implications that go far beyond those of the admirable and

spectacular successes of investigators who evolved surgical techniques to obviate or eliminate the dire effects of mitral stenosis and rheumatic aortic insufficiency.

The work of Denny and colleagues is a classic of cardiology by any definition; but it is not to be found anywhere in *Classics of cardiology*. Yet another relatively unsung classic is 'The pharmacological actions of polymethylene bis-trimethyl ammonium salts' (Paton and Zaimis: *Br. J. Pharmacol.*, 1949, 4: 381–400) which ushered in the first effective treatment (but not cure) of essential hypertension, even in its dreaded malignant phase. It also reduced the effect of hypertension as a risk factor in accelerating the march of arteriovascular disease. The drug (hexamethonium), brought to the fore by Paton and his colleagues, was not to be the last word in the treatment of essential hypertension; but the drug treatment of essential hypertension has extended the life spans and vastly improved the quality of life for countless thousands of sufferers from the disease.

The identification of so-called risk factors in the development of arteriosclerotic heart disease, including obstruction to coronary arterial blood flow, very properly receives attention in part 2 of volume 4. Ancel Keys's perceptive statement of 1953 (part 2, pp. 693–701) is still amazingly current, although no one is as yet able to say precisely why the morbidity of, and mortality from, coronary arterial disease are today on the decline in the western world. As things now stand, the investigator who devotes an entire career to such worthy efforts is taking an immense gamble with regard to personal recognition for his efforts during his lifetime. But no other research project seems at present as likely as the studies of Keys and his co-workers to yield a reasonable synthesis of the pathogenesis of arteriosclerotic disease in general, and coronary arterial disease in particular.

Deficiencies notwithstanding, the fourth volume of *Classics of cardiology* is a useful and courageous undertaking, the chief criticism being that the author-compilers seem to have defined cardiac classics too narrowly. But the question *what is a classic?* is once again raised by the inclusion of cardiac transplantation, while excluding immensely valuable but less dramatic items such as the prevention of rheumatic fever and effective treatment of essential hypertension. Cardiac transplantation, however spectacular and daring, seems to have created more problems than it is capable of solving; the question of donors is one such; the cost in money and professional time is another. But there is also the disturbing spectacle that developed in December 1967, immediately after Christiaan Barnard's success in transplanting a human heart from a cadaver into a 54-year-old man: within weeks there was a badly motivated scramble by some groups of surgeons to leap quickly on the bandwagon, with results that were often deplorable.

The profession's feet of clay were, for a time, all too visible. Running through all clinical research there must be a fundamental controlling principle that places the welfare, interests, and legitimate rights of the patient above all else within the professional relationship. *Classic, whether cardiac or of cardiology*, implies that the item be "of the highest rank or importance; approved as a model; standard, leading" (*OED*). But deficiencies notwithstanding, volume 4, and indeed the entire series, contains some of the stuff of history as well as an implied but strong suggestion that the crucial and complex calling of clinical investigation requires to hold its scales of values and, even more troublesome its motives, constantly under critical review.

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DANIEL M. FOX and CHRISTOPHER LAWRENCE, *Photographing medicine: image and power in Britain and America since 1840*, Contributions in Medical Studies 21, New York, Westport, and London, Greenwood Press, 1988, pp. 357, illus., £36.50.

ANNE HUDSON JONES (ed.), *Images of nurses: perspectives from history, art and literature*, Philadelphia, University of Pennsylvania Press, 1988, pp. xxii, 253, illus., £39.90, £18.95, (paperback).

In *Photographing Medicine* Daniel M. Fox and Christopher Lawrence present an impressive compilation of 271 images of medical men and women, institutions, and patients in the United