Quick Response Code:

Book Review

Computer-assisted diagnosis: Diabetes and cardiovascular disease, A.S. El-Baz & J. Suri, editors (Elsevier Inc., London, UK) 2021. 372 pages. Price: $150.00.

ISBN: 978-0-12-817428-9

Over the years diabetes and cardiovascular disease have emerged as twin epidemics in India. Indeed, non-communicable diseases are today the most common cause of death contributing to over 60 per cent of all deaths in India and of these cardiovascular disease would be on top of this list. A good percentage of the cardiovascular disease mortality is related to diabetes, because India also has high rates of diabetes incidence. In this context, this book is of interest and is timely.

The first three chapters deal with cardiac imaging, left ventricular segmentation and cine magnetic resonance and computational methods for identifying left ventricular heart pathologies. The next three chapters are specifically related to diabetes and the topics will all be of interest to the readers. Chapter 4 deals with diabetes and atrial fibrillation and chapter 5 specifically talks about different carotenoids and their roles in diabetic retinopathy and cardiovascular risk, while the sixth topic deals with nanomedicine approaches for diagnosis, treatment and theragnosis of diabetes and hypertension associated with cardiovascular diseases which is quite novel. There is a good chapter on the data-driven features learning on myocardial registration and segmentation. Chapter 8 deals with diabetes and the coronary circulation, moving from pathology to imaging.

Chapter 9 appears slightly out of context in this book as it deals with the paravalvular leak and aortic valve replacement which is not strictly speaking related to the title and scope of the book. However, it is still a valuable addition. Clinical imaging techniques for assessing vascular risk in lower extremities is a much-needed chapter. Although peripheral vascular disease is less common among Indians, as with progressive age and the duration of diabetes, the prevalence of peripheral vascular disease also increases markedly. The subject of heart failure in diabetes is one of the most important and contentious topics today, because globally, heart failure has emerged as the top most cardiovascular disease replacing atherosclerotic cardiovascular disease. This subject has also become important after the emergence of the SGLT2 (Sodium-glucose Cotransporter-2) drugs, which are now recognized not just as a glucose-lowering agent, but a specific drug for treatment of heart failure.

Overall, the book is comprehensive, although slightly disjointed in some ways. However, it would be of interest to diabetologists, endocrinologists and cardiologists. In addition, the book would also be a valuable addition to all medical college libraries as it would be useful to postgraduate students.

Conflicts of Interest: None.

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