

CARDIOVASCULAR NUCLEAR MEDICINE; Second Edition

Strauss H.W. and Betram P (Eds.)

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In the second edition of this text "we have attempted to provide sufficient material for the cardiologist intent on learning tracer procedures and for the nuclear physician". The editors have succeeded better in this intent than in the first edition but still the smell of the coronary care unit and the bustle of the busy clinic are lacking. The book opens with products of radioactive decay, charged particles and such theory as might have been designed to put off the most eager of cardiologists. Nevertheless the discussion of imaging systems is clear and there is an excellent description of the multicrystal camera and of why it works so well. The section on equilibrium gated studies is competent but there is insufficient discussion of the background problem and there is little to find concerning phase analysis. Coronary blood flow measurement and the imaging of its distribution are critically discussed. The inert gas washout technique is found wanting in all but the normal heart. The application of radioactive particles given through a cardiac catheter at rest and after contrast induced hyperaemia is described and it is suggested that their use may be limited to those patients with suspected coronary artery who fail to show exercise induced ^{201}Tl -Thallium imaging defects. One of the best chapters is that on the kinetics of thallium distribution and redistribution and it is a pity that so much knowledge finds so little real clinical application, thus defects found at rest and on exercise should not still be lumped together as indicating infarction and those occurring only on exercise as ischaemia. There is insufficient discussion of the problem of background correction or quantitation, of the use of gated ^{201}Tl -Thallium imaging or of the metabolic approach to cardiac disorder. Two chapters on imaging with infarct avid

radiopharmaceuticals, show considerable overlap as do those on emission tomography which is inadequately covered. One chapter on the morphology of cardiomyopathies could have well been omitted in the presence of another much more explicit one on radionuclide techniques in these conditions. The section on peripheral vascular disease gives an inadequate discussion of the detection of deep venous thrombosis and does not mention the use of ^{99m}Tc labelled plasmin. A rag bag of in vitro studies includes digoxin estimation and receptor analysis techniques but omits the radioassay of myoglobin. They form an inadequate conclusion.

Although this review has emphasised some of the weaknesses, nevertheless a cardiologist with a grasp of the knowledge portrayed in this book will understand the content of nuclear cardiology.

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