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Book reviews

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Atlas of Nuclear Cardiology/Atlas nukleární kardiologie
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ISBN 80–86781–00–3

Nuclear cardiology is one of the principal branches of nuclear medicine for two reasons: firstly, heart diseases are the main cause of death in developing countries, secondly, the rapid development of cardiac surgery as well as angioplasty, laser myocardial therapy etc. stimulates the growing demand for non-invasive diagnostic techniques. The number of nuclear cardiac studies is growing continuously, as a functional supplement to angiography, as well as being a predictor of the success of intervention, an important tool in assessing myocardial viability and in post-intervention follow-up.

Therefore, this interesting and very well illustrated atlas meets the needs of both cardiologists and nuclear medicine specialists. It will be probably a great help in the everyday work of nuclear cardiologists. It is printed on a very good paper, and the quality of the reproduced images is excellent.

The atlas has 68 pages, 34 illustrations and the text is in Czech and English. In the 16 page introduction, radiopharmaceuticals (SPECT and PET), stress techniques, SPECT imaging interpretation and indications for myocardial perfusion imaging are all discussed. This section would be even better if the mutual relations with radiological techniques were outlined and discussed, in particular the superiorities and inferiorities of radionuclide methods versus angiographic and MRI modalities. This would give nuclear medicine specialists a tool to use in arguments with fellow cardiologists and radiologists. Both in the *Indications* section and in the illustrated part, it could have been useful to have mentioned the important role of radionuclide studies in the evaluation of coronary heart disease with negative angiographic findings.

The illustrated part of the book shows the images of normal findings, attenuation artefacts, examples of single-vessel and multivessel coronary artery disease SPECT studies, post-infarction images, post-PTCA and post-CABG images, cardiomyopathy and myocardial viability studies. These examples are well chosen and excellently illustrated.

This part could have benefited from showing some more cardiac PET studies (three ^{18}FDG SPECT are included in the paragraph on myocardial viability). Positron emitting radiopharmaceuticals are mentioned briefly in the introduction (paragraph 2.2), but the authors do not carry this issue any further. That is a pity, as the role of PET, especially in the assessment of myocardial viability, is increasing.

Unfortunately, the literature overview does not, with three exceptions, cover positions published later then 1999.

Despite these minor drawbacks, the authors should be highly praised for their efforts in publishing this book and special congratulations should be paid to Lacomed Ltd. for their role in this contribution to education. This Czech radiopharmaceutical manufacturer is running, at least in this part of Europe, an interesting and unique educational scheme by supporting publications like this. As far as I remember, this is their fifth publication of this type, following ones on gallium scintigraphy, samarium-153 therapy, renal disorders and PET. I wish such publications could be produced, for example, here in Poland.

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Otakar Belohlávek, Monika Jarušková,
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Atlas of Positron Emission Tomography/Atlas pozitronové emisni tomografie
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Few people know that the history of Positron Emission Tomography dates back to 1951 and that the first imaging devices of PET have their origins in the sixties. The interesting historical introduction in this atlas gives the reader a fascinating view of the

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illustrated overview of PET applications. This technique actually started its march as late as the 1990s, less scientific like before, but on more and more clinical applications.

The Czech Republic has become one of the most important, if not the most important PET centre in Central Europe. Historically, the first PET centre in Central Europe was established in Debrecen (Hungary). A PET centre is also located in Bratislava (Slovakia) and a newly established one is in Bydgoszcz (Poland). However, two PET units in Prague and a third one in Brno make the Czech Republic No. 1 in PET in the region.

This atlas by Belohlávek et al. is a summary of four years experience in "Na Homolce" PET Centre. It has 72 pages, describes 52 well-chosen cases of PET application and the text is in Czech and English.

In the 19 page introduction, the authors describe the history and physical aspects of PET, data acquisition and processing, the pharmaco-kinetics of ^{18}F-DG and the normal pattern of FDG uptake. Perhaps the authors should have dedicated a paragraph to radiopharmaceuticals other than FDG and radioisotopes other than ^{18}F (this issue is briefly mentioned on page 65), but I understand that the book is focused on the most popular radiopharmaceutical in use, which is FDG.

The illustrated section of the book shows images of the normal pattern of FDG uptake, brain, head and neck tumours, lung diseases — malignant and benign (pneumonia) findings, GI tumours, urogenital tumours, breast cancer, endocrine tumours, sarcomas, lymphomas, inflammation, epilepsy and an assessment of myocardial viability. The quality of paper and illustrations is very good. At the end of each paragraph a brief summary of clinical considerations is to be found.

Something both very pleasant and admirable is the objectivity of the authors. It is very easy to fall into the trap of unconditional enthusiasm for our own concepts; as Sir Robert Millikan, the physicist, once said "Never fall in love with your theory". Fortunately, the authors did not. When FDG PET fails, e.g. in distinguishing tumours and inflammation, it is admitted with objectivity and honesty. This is also seen in the summaries mentioned above. Chapter 7 — "Decalogue of oncological (PET) indications" is written transparently and self-critically, showing both common sense and a self-deprecatory sense of humour.

One minor remark — the atlas is almost entirely lacking references. The authors mention 32,000 positions under the key-word PET in MEDLINE at the beginning of 2003 (page 9).

Therefore, why did they not cite some of them?

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