



## Dear Sirs and Madams,

It is my great pleasure to introduce the current issue of "Nuclear Medicine Review". This time, the chapter "Original articles" opens the paper written by Hungarian colleagues from Budapest "In vitro and biodistribution examinations of Tc-99m labelled doxorubicin-loaded nanoparticles". The authors concluded that different and stable particle sizes make drug carrier human serum albumine nanoparticles possible to apply different drug targeting in a potential clinical use.

The second interesting paper about the V/Q scanning in young women from Prague/Czech Republic showed that 42% patients on hormonal contraception had scintigraphic signs of pulmonary embolism and 19% of them had clinical signs of deep venous system thrombosis of the lower limbs. It seems that the risk of venous thromboembolism related to the use of hormonal contraception needs to be considered as a cause of pulmonary embolism even among very young females.

From the next article from Poznan/Poland we learned that focal increased  $^{18}\text{F}$ -FDG uptake was found in 3.7 % of patients and the probability of malignancy of these lesions is rather high.

"Can treatment with radiolabeled somatostatin analogue increase the survival rate in patients with nonfunctioning neuroendocrine pancreatic tumors?" is the title of the next polish original paper from Krakow. The authors concluded that peptide receptor radionuclide therapy is safe and effective treatment option in patients with this neoplasm and there is no statistically significant difference in survival rate in comparison to patients with neuroendocrine tumours of the other localization treated in the same way.

The colleagues from Cluj-Napoca/Romania assessed the possibility to perform  $^{99\text{m}}\text{Tc}$ -Tetrofosmine for dynamic hepatobiliary scintigraphy to obtain the good quality of scintigraphic images. That allowed the correct diagnosis of biliary dyskinesia, stasis, stenosis and fistulas. The necessary dose is approximately 8 to 20 times smaller than that used for myocardial perfusion scintigraphy.

And the sixth original paper from Otwock/Poland compared the receptor affinity of  $^{nat}\text{Sc}$ -DOTA-TATE versus  $^{nat}\text{Ga}$ -DOTA-TATE.  $^{44}\text{Sc}$  as positron emitter can be an interesting alternative to  $^{68}\text{Ga}$  due to its longer half life. Moreover the  $\beta^-$  emitter  $^{47}\text{Sc}$  can be used for therapy using the same biomolecule vectors in the future. They proved that binding affinity of  $^{nat}\text{Ga}$ -DOTA-TATE appeared higher than that of  $^{nat}\text{Sc}$ -DOTA-TATE. Further *in vitro* and *in vivo* studies are needed in order to verify the influence of the chelated metal on the affinity and uptake of the respective radiolabeled compounds.

The Review part of current Nuclear Medicine Review consist of three very interesting papers. The first review on the comparison of  $^{64}\text{Cu}$ -ATSM PET in molecular imaging of tumor hypoxia with the classical  $^{18}\text{F}$ -MISO written by French colleagues from Nantes elucidates that  $^{64}\text{Cu}$ -ATSM appears superior in terms of imaging performances calling for an industrial and clinical development of this innovative radiopharmaceutical. The next article "Radioisotope therapy of cancer bone metastases" by Maciej Bączyk from Poznan/Poland concluded that radioisotopes are an important addition to the armamentarium of clinicians who take care of patients with advanced cancer and painful cancer bone metastases.

The paper "Bone metastases diagnosing possibilities in studies with the use of  $^{18}\text{F}$ -NaF and  $^{18}\text{F}$ -FDG" from Kielce and Warsaw/Poland is comparing the role of  $^{18}\text{F}$ -NaF and  $^{18}\text{F}$ -FDG in diagnosis of bone metastases.

In this issue of Nuclear Medicine Review there are four interesting clinical cases.

The authors from Toulouse/France described the false-positive finding in therapeutic evaluation in a lymphoma patient following FDG extravasation. The role of gated myocardial perfusion scintigraphy (GMPS) in myocarditis was discussed by Iranian scientists from Bushehr is the next interesting report. Polish physicians from Warsaw/Poland visualized persistence of splenic tissue after splenectomy in 80-yr-old man with idiopathic thrombocytopenic purpura. And Italian authors from Rozzano (MI) reported the case of  $^{11}\text{C}$ -choline PET/CT in locally advanced prostate cancer.  $^{11}\text{C}$ -choline has a negligible urinary elimination which, in selected cases, ends up to be an advantage.

The chapter Past Events includes a short relation from the opening ceremony of the new PET-CT-NMR center in Krakow/Poland and a Report from the 1<sup>st</sup> World Congress on Gallium-68 and Peptide Receptor Radio Nuclide Therapy (PRRNT).

In the end of my letter I would like to wish all of you Merry Christmas, I hope that this issue of Nuclear Medicine Review will be found under your Christmas Tree. And Happy New Year!

Yours

Grzegorz Kamiński

Editor-in-Chief  
Nuclear Medicine Review