

## **Clinical comparison of internal absorbed doses by standard and optimization protocol administrated activity in bone nuclear medicine studies**

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Internal absorbed dose in kidneys in the case of bone scintigraphy studies has been estimated for 14 patients in two different groups with 20 patients in each group respectively. The first group is administrated with an activity equal to 20 mCi of <sup>99m</sup>Tc-MDA radiopharmaceutical. In the second group, patients are benefited with a protocol of optimization for the administrated activity under a range of (10 mCi to 19 mCi) was used as a function of the width for each patient. The measurement data in the present study was acquired with an e-cam gamma camera under a Low Energy High Resolution (LEHR) collimator. Finally, results of the kidney organ absorbed dose were compared to the previous techniques. Our preliminary results suggest that the optimization protocol decreases the absorbed dose in the different organs by a factor that tends towards ~2. In another case, a good image quality obtained with the proposed optimization is compared to the standard administrated on the used activity. That may be the best radiation safety to patient and staff in the nuclear medicine studies.

### **Biography**

Ati Moncef is a student from the University Hospital, Algeria. His research interests include both Medical Physics and Nuclear Medicine Education. He has many publications, abstracts and presentations combined.

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