

Comparative Study between the Absorbed Dose of 67ga-Ecc and 68ga-Ecc

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Abstract : In this study, 68Ga-ECC and 67Ga-ECC were both prepared with the radiochemical purity of higher than 97% in less than 30 min. The biodistribution data for 68Ga-ECC showed the extraction of the most of the activity from the urinary tract. The absorbed dose was estimated based on biodistribution data in mice by the medical internal radiation dose (MIRD) method. Comparison between human absorbed dose estimation for these two agents indicated the values of approximately ten-fold higher after injection of 67Ga-ECC than 68Ga-ECC in the most organs. The results showed that 68Ga-ECC can be considered as a more potential agent for renal imaging compared to 67Ga-ECC.

Keywords : effective absorbed dose, ethylenecysteamine cysteine, Ga-67, Ga-68

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