عنوان مقاله:

Preclinical studies of 166Ho-chitosan for treatment of hepatocellular carcinoma

محل انتشار:

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خلاصه مقاله:

Introduction: Recently, due to the special characteristics of 166Ho and chitosan, 166Ho-chitosan complex was developed for treatment of tumors such as hepatocellular carcinoma. This complex has been lately prepared with high radiochemical purity in our lab. The preclinical studies of the complex however should be performed to evaluate the tracer concentration in target and normal tissues before human use. Methods:In this study, 166Ho-chitosan was prepared and its preclinical studies for treatment of hepatocellular carcinoma was carried out by injection of the radiopharmaceutical into the rabbit s liver via two different methods, surgery and venography. Leakage of the injected activity from the injection site in the rabbit organs was investigated using SPECT and SPECT-CT imaging up to 24 hours. Results:Both SPECT and SPECT-CT imaging of the rabbits showed that there was no significant leakage of the injected activity. Almost all the activity would remain in the injection site at least 24 h post injection. Conclusion: Considering all of the excellent features of the complex, this radiopharmaceutical is suggestive for treatment of .hepatocellular carcinoma by radioembolization method

کلمات کلیدی:

Chitosan, Holmium-166, Hepatocellular Carcinoma, SPECT, SPECT/CT