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Study of bio-distribution of encapsulated ytterbium nanoparticles for solid tumors treatment in mice

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We have studied synthesis and characterization of poly (amidoamine) PAMAM G5 encapsulated ytterbium nanoparticles. We have developed a method for the synthesis of dendrimer encapsulated 175Yb nanoparticles in order to produce nano-radiopharmaceutical with irradiation in research reactor. The results of UV-Vis absorption spectra, High Resolution Transmission Electron Microscopy (HRTEM), Dynamic Light Scattering (DLS) and quality control tests of irradiation showed the formation of nano-radiopharmaceutical. The bio distribution of ytterbium nanoparticles in mice that had solid tumors have been studied. The results demonstrate the treatment of solid tumors by ytterbium nanoparticles.

Biography

Navideh Aghaei Amirkhizi completed her PhD from Science and Research Branch, Islamic Azad University of Tehran, Iran. She is a Researcher in Nuclear Science and Technology Research Institute, and researches about radiopharmaceutical. Her PhD thesis was about production of two nano-radiopharmaceuticals for solid tumors. She has published more than 25 papers.

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