核醫診療學之最新進展 Theranostics in Nuclear Medicine 柯冠吟

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Theranostics is a concept of the pairing of diagnostic and therapeutic agents which share a specific target on the surface of cells or tissues. In the recent years, nuclear medicine has made much progress on the oncology applications by utilizing the concept of theranostics. Use the radiopharmaceutical to image biological process through the specific target including cell membrane receptors or transporters and then the other agent to deliver radiation to the tissues which express the same target. By means of therapeutic approach, help to provide personalized treatment for many kinds of diseases, improve patient selection, predict treatment response, toxicity and prognosis. The talk will describe the theranostic concept in nuclear medicine, list and introduce the classic and modern agents, such as radioiodine, MIBG, bone seeking radiopharmaceuticals, Y-90 microsphere, PRRT and so on. Besides, the role of FDG PET/CT will also be discussed.