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REVISÕES E METANALISES - 17° SIMPÓSIO EDWALDO CAMARGO E 1°CONGRESSO CANCERTHERA

THERANOSTICS: NUCLEAR MEDICINE IN PROSTATE CANCER

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Summary: Theranostic Nuclear Medicine is based on the idea of combining the same molecule (or drug) with different radioisotopes, both for diagnosis and treatment, a concept that emerged in the early 1940s with thyroid diseases. It has since expanded to diseases of higher incidence, such as prostate cancer with several imaging methods used to assess the extent of the disease and the corresponding radiopharmaceuticals used for treatment. For example, by detecting osteoblastic metastases by bone scintigraphy, there are corresponding radiopharmaceuticals with therapeutic properties that eliminate pain from bone metastases, reduce pain of these detected metastases and/or determine overall survival gain. The purpose of this review is to discuss the role and great importance of Theranostic Nuclear Medicine in prostate cancer, addressing the main diagnostic imaging studies with their corresponding treatments, in the Theranostic model. **Conclusão:** Nuclear Medicine plays an increasingly significant role in the diagnostic and therapeutic approach to urological malignancies. The enormous advances in SPECT/CT and especially PET/CT images now allow an assessment of these tumors in the staging, recurrence, and response to treatment settings. Molecular imaging identifies alterations not identified by anatomical imaging and for this reason, PET/CT images are becoming increasingly indispensable in specific clinical situations and with precise indications according to the type of urological neoplasia. Theranostic Nuclear Medicine is rapidly evolving in prostate cancer and is a well-established and routine treatment option. Additionally, it is a personalized therapy. The concept of using the same molecule for diagnosis and therapy opened the door to guided and effective treatment, increasing patient survival while maintaining an excellent quality of life and without serious side effects, which is a challenge in metastatic cancer treatments.

Keywords: 18F-fluoride, FDG, Nuclear medicine, PET/CT, PSMA.

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EFFICACY AND SAFETY OF RADIUM-223 AND STANDARD OF CARE IN PATIENTS WITH BREAST CANCER AND BONE METASTASIS: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Summary: Radium-223 (Ra-223) has been used to treat metastatic bone disease in prostate cancer, improving overall survival and quality of life. Breast cancer often presents bone metastasis too, but it is often associated with other sites of disease. In such cases, the addition of Ra-223 to the standard of care (SC) may be beneficial. Therefore, our objective is to determine if the use of Radium-223 plus SC is beneficial for metastatic bone breast cancer patients through a systematic

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