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POSSIBLE THERAPEUTIC APPLICATION OF RADIOACTIVE TIN- ^{117m}Sn

Abstract – Due to its physical properties ^{117m}Sn is proposed as a potentially very useful therapeutic radionuclide. DTPA (IV) labeled with ^{117m}Sn is suggested to be an effective agent for the palliation of pain from bony metastases. This radionuclide can be obtained in large activities only in high flux nuclear reactors. The major drawback is, however, low specific activity thus limiting its wide use in bone pain palliation and synovectomy. Therefore attempts are made to develop the production of high specific activity ^{117m}Sn in cyclotrons.

Key words: tin-117m, nuclear medicine, therapy, radiopharmaceuticals.