Annals of Nuclear Medicine Vol. 8, No. 1, 85–89, 1994

^{99m}Tc labeling white blood cells with a simple technique: Clinical application

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Several radionuclides and different methods have been employed as cellular labels to study inflammatory sites in man. Here we present the results obtained with white blood cells (WBC) labeled with ^{99m}Tc using a simple and low cost new technique (SnTec). WBC were incubated with 12 $\mu g/ml$ of stannous chloride for 10 min at room temperature. Then ^{99m}Tc was added. After 10 min, the ^{99m}Tc-labeled WBC were washed and injected into the patient. Comparison studies with ^{99m}Tc-labeled WBC using the HMPAO technique were carried out in patients with suspected osteomyelitis. Since the results are similar with both methods, we suggest the use of SnTec to label WBC, in cases of inflammatory diseases.

Key words: white blood cells, ^{99m}Tc, SnTec, HMPAO, osteomyelitis