

The following abstract was submitted, accepted and presented as a poster at the 44th Annual Meeting of the Society of Nuclear Medicine in San Antonio, TX, under the category of Infection/Hematology. Due to a formatting error, it was not included in the 1997 May Abstract Book Supplement to *The Journal of Nuclear Medicine*.

SNM Scientific Program Committee

### No. 49855

**The new approach: Infection detection with Ciprofloxacin-Tc99m (INFECTON).** V.E.Soroa, K.K.Solanki, R.Cabrejas, K.E.Britton  
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Infection detection still remains a problem to be solved.

The aims were:

- 1) Identification of bacterial presence in orthopaedic, dental, soft tissue and unknown infected focii.
- 2) Correlation of results with other imaging modalities and microbiological findings.

Fifty two patients underwent Infecton scintigraphy, with complementary: MDP, GA-67, Polyclonal IgG-Tc99m, Monoclonal anti granulocytes-Tc99m, Nanocolloid or Labelled Leukocytes HMPAO Tc99m (LLeuk) scans and Radiology as appropriate. A two step preparation of 2mg of ciprofloxacin (chelated reduced) was labelled with 444-481 MBq of Tc99m. Image protocol: flow, static images 1h and 4-5 hrs, SPECT at 3 hrs. Normal uptake in kidneys, bladder and hepatosplenic tissue was seen seldom, in intestinal tract. No adverse reactions. No invalidated results with one week of antibiotic treatment. Three positive LLeuk, had discordant true negative Infecton scans. Once, Infecton was the only true positive image (fine needle biopsy negative); proved by post-surgery cultures of the prosthesis. Specificity 93% Sensitivity 97% Positive Predictive Value 97% Negative Predictive Value 93% Accuracy 96%

Summarising, our results were encouraging in a broad scope of infectious conditions, whether acute or chronic. No blood manipulation is required. As IAEA research programme with this agent, continues, more answers will be obtained.