

Appendix Report on the Autoradiographic Localization of ^{241}Am in Selected Soft Tissue Samples from USTUR Case 0246

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A qualitative and semi-quantitative localization of ^{241}Am in selected soft tissue samples was determined by light microscopic autoradiography. Frozen autopsy tissue samples were thawed and fixed in 10% buffered neutral formalin; embedded in paraffin; sectioned at 5 μm and dipped in liquid nuclear track emulsion (Ilford K-1 for lung; K-5 for all other tissues); and stained with hemotoxylin and eosin by standard published techniques (Thompson and Hunt 1966). All alpha tracks in a grid area measuring 600 μm on a side in 10 randomly selected fields were counted for each tissue. Due to freezing, thawing, and some autolysis, many of the tissue samples displayed abnormal cellular morphology and thus made cell identification sometimes difficult. Notwithstanding, a semi-quantitative distribution of americium activity within each tissue sample was determined by alpha track counting.

USTUR-0025-95