

## Postmortem Tissue Contents of $^{241}\text{Am}$ in a Person With a Massive Acute Exposure

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$^{241}\text{Am}$  was determined radiochemically in the tissues of USTUR Case 246, a 76-y-old man who died of cardiovascular disease 11 years after massive percutaneous exposure following a chemical explosion in a glove box. This worker was treated extensively with a chelation drug, DTPA, for over 4 years after exposure. The estimated  $^{241}\text{Am}$  deposition at the time of death was 540 kBq, of which 90% was in the skeleton, 5.1% in the liver, and 3.5% in muscle and fat. Among the soft tissues, the highest concentrations were observed in liver (22 Bq g<sup>-1</sup>), certain cartilaginous structures such as the larynx (15 Bq g<sup>-1</sup>) and the red marrow (9.7 Bq g<sup>-1</sup>), as compared with the mean soft tissue concentration of approximately 1 Bq g<sup>-1</sup>. Concentration in muscle was approximately that of the soft tissue average, while concentrations in the pancreas, a hilar lymph node and fat were less than the average. Concentrations in bone ash were inversely related to the ratio of ash weight to wet weight, a surrogate for bone volume-to-surface ration. The distribution of activity in this case is reasonably consistent with that observed in another human case, when allowance is made for chelation therapy, and also tends to support more recent models of  $^{241}\text{Am}$  metabolism.

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