



Jewish General Hospital
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"A Curious Case: A Criminal Exposure to X-rays"

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Abstract

In 1989, following a workplace conflict, a worker activated industrial X-ray radiography equipment to intentionally expose a colleague to a significant dose of ionizing radiation - representing the only known documented case of an X-ray generator being used to commit a criminal act.

Looking back 37 years after the event, this talk explores the technical parameters and critical systemic takeaways of the incident. It integrates original physical phantom measurements and cytogenetic data to demonstrate how dose assessments are established when standard monitoring is absent or manipulated. In doing so, it highlights the challenges of dosimetric uncertainty in non-standard geometries and energies, underscores the necessity of rapid early biodosimetric triage for victim care, and addresses the severe administrative, jurisdictional, and psychosocial hurdles faced by victims in gaining recognition and support from legal and governmental authorities after extraordinary radiation incidents.