

A Study of Puncture Wounds in USTUR Registrants

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Although Thorotrast is not an actinide, it is primarily an alpha emitter (~90% of the emissions); the similarities between its subdermal and intramuscular depositions with the resultant tissue responses and that of DU-induced wounds in former military service personnel are somewhat comparable.

Moreover, the administration of Thorotrast for medical purposes is also somewhat different than that of the accidental incorporation of alpha emitters i.e. Pu via a puncture wound, cut or abrasion the actual trauma, pathobiological and physiological events that follow should be quite similar.

Depleted uranium (DU) is the residual metal remaining after refining natural uranium and as such could pose a chemical threat under certain conditions. It is used in ant-tank artillery shells, bombs, and in armor plating for tanks and other armored vehicles.

Although depleted uranium is radiologically speaking, no more radioactive than natural uranium, it is a known chemical toxicant. In addition, when depleted uranium burns, as happens when an anti-tank armored shell strikes a tank with DU plating, much of the metal burns and oxidizes into small respirable particles and some into metal chards of fragments. These respirable particles if inhaled or ingested, can exert toxic effects on various organ systems. The metal fragments of Du can also inflict tissue injuries and when left in the body serve as depots of translocation metal species over time.

Accordingly, a variety of claims have been filed by a number of Gulf War veterans who believe that they are suffering from a variety of undiagnosed illnesses (Gulf War Syndrome) caused by their exposure to DU during the Gulf War conflict.

In this study using tissue samples from USTUR donors, we will examine the following issues that are common to our registrants and those with DU injuries.

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