

The study by Facchetti and co-workers was the first case of human exposure to TCDD in which an analysis was made of cadaveric tissue to detect and study the distribution of dioxin. The subject of the study was a 55-year old woman who had died from a pancreatic adenocarcinoma 7 months after the ICMSA accident in Seveso in July 1976. Although the cancer was not a result of the exposure to TCDD, the woman was significantly exposed to the toxic cloud. During the passage of the toxic cloud the woman was eating a meal in her home with doors and windows open. In the four days after the event, the woman consumed vegetables from the garden attached to her home. Animals reared by the woman's family in an area adjacent to the home began to die over a period of 15 days after the event. The woman was evacuated from her home and the associated area after 16 days. Subsequent tests for TCDD indicated that the subject had lived in a sector of Zone A which had a mean soil concentration of 185 ug/m². On the basis of the circumstances recorded it was presumed that the woman absorbed toxic substances contained in the cloud by inhalation, ingestion and contact. Two young nephews of the subject living in the same building developed serious chloracne on the third and fourth days, respectively, after the exposure.

The results (means of three independent determinations) for the GC-MS analysis for 2,3,7,8-TCDD in selected human tissues are shown in Table 1.

TABLE 1. TISSUE CONCENTRATIONS, PARTS PER TRILLION, OF 2,3,7,8-TETRACHLORO-DIBENZO-P-DIOXIN IN THE ORGANS OF A WOMAN WHO DIED OF CANCER SEVEN MONTHS AFTER EXPOSURE, SEVESO, ITALY^a

<u>Sample</u>	<u>2,3,7,8-TCDD/wet tissue (ppt)</u>
Fat	1840 ^b
Pancreas	1040 ^{bc}
Liver	150 ^{bc}
Thyroid	85 ^c
Brain	60 ^b
Lung	60 ^b
Kidney	40 ^b
Blood	6 ^c

^a Data from Facchetti et al., 1981

^b values obtained at a resolution of 2,500

^c values obtained at a resolution of 10,000