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LOCALIZATION OF MERCURY COMPOUND IN TESTIS, EFFERENT DUCTULE AND EPIDIDYMIS OF THE ADULT MOUSE

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To find out localization of mercury in male reproductive system, adult male mice were injected subcutaneously with methyl mercuric chloride (1 mg/mouse) once per week for 20, 40 and 70 days. The experimental periods later, animals were sacrificed by transcordial perfusion and organs were removed, dehydrated, and embedded in paraffin. Tissue sections were developed by autometallography, a method for the detection of accumulated mercury in the tissues. Mercury was localized within the Sertoli and Leydig cells of testis. Epithelial cells of rete testis and germ cells did not show the mercury precipitates. Distribution patterns of the mercury in epithelial cells of efferent ductule were different depending on regions. In proximal and common regions, mercury was accumulated throughout the cytoplasm of epithelial cells however, in conus region, mainly located in supranuclear cytoplasm of the cells. In initial segment epididymis, narrow and basal cells showed the mercury granules in their cytoplasm. Mercury was not located in principal cells of initial segment. In caput epididymis, mercury was evenly distributed in cytoplasm of principal cells. However, in corpus and cauda epididymis, mercury was accumulated in basal area of principal cells. In conclusion, germ cells in testis were not effected directly from mercury.