

cer was not so large as expected. The scintigram of the prostate gland was not depicted.

Currently, estrogen therapy for carcinoma

of the prostate has been subjected to wide discussion and to reconsideration. Further studies on this problem are now under way.

### **Autoradiographic Study on the Distribution in Mouse Tissues by $^3\text{H}$ -Prednisolone**

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The distribution and excretion of  $^3\text{H}$ -prednisolone in mouse tissues were investigated by micro-autoradiography.

The tritiated prednisolone ( $15 \mu\text{Ci/g}$ ; body weight) was administered intraperitoneally. The animals were sacrificed after injection with lapse of time. The autoradiographs were made by stripping method as paraffin sections. Soluble isotope of the preparates was as well as possible washed away with water. The back ground and the "diffusion phenomenon" of isotope were few seen.

The incorporation of  $^3\text{H}$ -prednisolone was most prominent in the liver and the kidney. The silver grains were found also in the gastrointestinal tract. These organs seem to be play a role of metabolic pathway of prednisolone.

The silver grain count in the liver parenchym was eighteen in number as average, but in the Kupffer's cells and in the connective

tisslue was a few.

In the kidney the silver grains of  $^3\text{H}$ -prednisolone were frequently found in the epithelium of renal proximal tubuli, but rarely found in the glomeruli and the connective tissue.

The label in the stomach was fairly found in the muscle layer and the submucosa, but a few in the gastric glandular cells. The incorporation in the gastric gland was mainly seen in the parietal cells.

In the small intestine the silver grains were found in the villi cells and the submucosa.

The pancreas, the heart, the lungs and the spleen have a few numbers of silver grains in this experiment.

It is probable that the silver grains mean the label which resulted from the administration of  $^3\text{H}$ -prednisolone. But it is impossible that these indicate always  $^3\text{H}$ -prednisolone itself.

### **Micro Determination of Plasma Corticosteroids by Competitive Protein-Binding Radioassay**

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A simple sensitive method of estimating cortisol and corticosterone in plasma has been reported, utilizing the steroid-binding properties of plasma. The addition of increasing amounts of unlabeled cortisol or corticosterone

to an equilibrium system containing standard plasma and a constant amount of  $^3\text{H}$ -corticosterone caused a proportional decrease in the percentage of  $^3\text{H}$ -corticosterone bound to the plasma protein.