

## **$^{67}\text{Ga}$ in transferrin-unbound form is taken up by inflamed liver of mouse treated with $\text{CCl}_4$**

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In order to investigate whether or not transferrin is involved in the uptake of  $^{67}\text{Ga}$  by inflamed liver (acute inflammatory tissues) the uptake of  $^{67}\text{Ga}$  by the liver of mice treated with carbon tetrachloride ( $\text{CCl}_4$ ) was studied. The serum GPT value reached its maximum on the 1st day after the  $\text{CCl}_4$  treatment. The uptake of  $^{67}\text{Ga}$  by the liver also reached its maximum on the 1st day after the  $\text{CCl}_4$  treatment and the amount uptaken into inflamed liver was about 6 times that uptaken into normal liver. On the other hand, the uptake of  $^{125}\text{I}$ -transferrin into inflamed liver on the 1st day after  $\text{CCl}_4$  treatment was only about 1.6 times that into normal liver. Moreover, cold  $\text{Fe}^{3+}$  decreased the uptake of  $^{67}\text{Ga}$  by normal liver but increased the uptake of  $^{67}\text{Ga}$  by inflamed liver. These results show that transferrin plays an important role in the uptake of  $^{67}\text{Ga}$  by normal liver but not by inflamed liver, i.e.  $^{67}\text{Ga}$  in the transferrin-unbound form is preferentially taken up by inflamed liver.

**Key words:**  $^{67}\text{Ga}$  uptake,  $\text{CCl}_4$  treatment, mouse damaged-liver, transferrin