

**N-Acetyl-L-Tryptophan の毒性研究 (第2報)\*****ラットにおける亜急性毒性試験**

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**Toxicological Studies on N-Acetyl-L-Tryptophan II\*****Subacute toxicity in rats**

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**Summary**

N-Acetyl-L-tryptophan was investigated with regard to the subacute toxicity in Wistar rats of both sexes at intraperitoneal doses of 600, 1,200 and 2,400 mg/kg/day for 30 days. L-Tryptophan was employed as the control at the doses of 500, 1,000 and 2,000 mg/kg/day for the same periods.

In the N-Acetyl-L-tryptophan administered animals, body weight gain and food consumption were slightly depressed during the first five days of the administration in the females given 2,400 mg/kg/day. However, throughout the doses, no significant changes attributable to this compound were noted in the animals in hematology, serum biochemistry, urinalysis, autopsy, organ weight and histopathological examination.

In the L-Tryptophan administered animals, death, depression of moter activity, inhibition of body weight gain, reduction of food consumption, increase of water consumption and urinary volume, and piloerection were observed in the both sexes given 1,000 mg/kg/day or more. Serum biochemistry showed elevation of GOT activity in both of the males given 2,000 mg/kg/day and the females given above 1,000 mg/kg/day. Elevation of ALP activity was noted and liver and kidney weights increased in the females at all doses. In the histopathological examination, hepatocyte hypertrophy as well as atrophy of thymus were observed in the animals at above 1,000 mg/kg/day dose.

From these results, it has been considered that N-Acetyl-L-tryptophan is less toxic than L-Tryptophan and its maximum non-effective dose is 1,200 mg/kg/day.

**Key words**

N-Acetyl-L-tryptophan, L-Tryptophan, Subacute toxicity, Rat

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