

N-Acetyl-L-Tryptophan の毒性研究 (第3報)*

ウサギにおける亜急性毒性試験

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Toxicological Studies of N-Acetyl-L-Tryptophan III*

Subacute toxicity in rabbits

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Summary

The subacute toxicity of N-Acetyl-L-Tryptophan (Acetyl-L-Trp) was comparatively studied in Japanese albino rabbits with that of L-Tryptophan (L-Trp). The animals received the intravenous doses of 600, 1,200 and 2,400 mg/kg/day of Acetyl-L-Trp and 500, 1,000 and 2,000 mg/kg/day of L-Trp for 30 days.

In the animals receiving Acetyl-L-Trp, depression of body weight gain accompanying depressed food consumption, anemic sign and increase in LDH activity were observed in the males at 2,400 mg/kg/day, while increase in adrenal weight and anemic sign were noted in the females. Both sexes at this dose showed slight increases in red cell count, hemoglobin concentration and hematocrit values. In autopsy and histopathological examination no significant changes attributable to the administration were found at any of the doses employed.

In the animals receiving L-Trp, death cases and depression of body weight gain were observed in the both sexes at the doses 1,000 mg/kg/day or more, and the postmortem examination of the both sexes after 15 days of administration revealed histopathologically tubular dilatation with flattened epithelium of kidneys. Decreases in red cell count, hemoglobin concentration and hematocrit values were significant in the both sexes given 1,000 mg/kg/day, and atrophies of thymus and testis were histopathologically observed at this dose.

It was, therefore, concluded that Acetyl-L-Trp was less toxic than L-Trp and its maximum non-toxic dose as above 1,200 mg/kg/day.

Key word

N-Acetyl-L-Tryptophan, L-Tryptophan, Subacute toxicity, Rabbit

*第1報, 第2報 本誌

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