

# N-Acetyl-L-Tryptophan の毒性研究 (第10報)\*

## ウサギにおける慢性毒性試験

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## Toxicological Studies on N-Acetyl-L-Tryptophan X Chronic toxicity in rabbits

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### Summary

The chronic toxicity of N-Acetyl-L-tryptophan was studied in male Japanese albino rabbits at intravenous doses of 300, 600 and 1,200mg/kg/day for 90 days. As the control, the dosages of 500 and 1,000mg/kg/day of L-Tryptophan was administered to the animals for the same periods.

In the N-Acetyl-L-tryptophan administered animals, body weight gain was slightly depressed during the first one week at 1,200mg/kg/day. However, across the doses, no significant changes attributable to this compound were noted in hematology, serum biochemistry, urinalysis, autopsy, organ weight and histopathological examination.

In the L-Tryptophan administered animals, death, depress of motor activity, piloerection, inhibition of body weight gain, reduction of food consumption, decreases of water consumption and urine volume were observed at the dose of 1,000mg/kg/day. In the hematology, decreases in red cell count, hemoglobin concentration and hematocrit values of the rabbits given 1,000mg/kg/day were noted. In the serum biochemical examination, increase of serum glucose was seen at 1,000mg/kg/day dose. In the histopathological examination, tubular dilatation with flattened epithelium in kidneys of the dead rabbits given 1,000mg/kg/day were observed.

Thus, it was concluded that N-Acetyl-L-tryptophan was less toxic than L-Tryptophan, and its maximum non-toxic dose was above 600mg/kg/day.

### Key words

N-Acetyl-L-tryptophan, L-Tryptophan, Chronic toxicity, Rabbit

### 緒 言

N-Acetyl-L-Tryptophan は、新しく開発されたア

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ミノ酸輸液である7.5%ブドウ糖加アミノ酸注射液 (AG-80) に一成分として配合されている。

本剤は、従来のアミノ酸輸液に配合されて来た L-Tryptophan と置換することにより、アミノ酸と Glucose の混合による褐色化を非常に抑制する<sup>1)</sup>。

また、N-Acetyl-L-Tryptophan は輸液として用いられる投与量及び投与条件では、生体内で L-Tryptophan と栄養学的に同等に利用される<sup>2)</sup> ところから、