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THE SOMATOTROPHIC EFFECT OF HAELAN 851® NUTRITIONAL BEVERAGE ON DYSTROPHIC MICE

INTRODUCTION

Dystrophy is any abnormal condition caused by defective nutrition or metabolism, often applied to a developmental change in muscles that does not involve the nervous system, such as fatty degeneration associated with increased size but decreased strength.

The purpose of this experiment was to determine what effect, if any, Haelan 851, Platinum Formula, oral nutritional beverage had on mice with induced dystrophy.

METHODS AND MATERIALS

Sixty Kunming breed mice, born on the same day in different litters, having similar weights were selected at random to conduct this experiment. The mice were divided randomly into five groups with each group containing 12 mice.

In order to induce dystrophy in the mice, machine made rabbit's fodder was used as the feed. The mice in the positive control group were fed machine made whole valence mouse's feed. The difference of the main ingredients in the two feeds is as follows:

Main Ingredients In Each Feed Type:	Mouse's Feed	Rabbit's Fodder
Protein	24 %	16%
Fat	6 %	4 %
Coarse fiber	4%	12 %
Non-nitrogen extract	45 %	60 %
Energy	3,500 kilocalorie/kg	3,000 kilocalorie/kg

The first four groups of mice were given the rabbit's fodder to cause dystrophic models. The fifth group was given mouse's feed as the positive control of normal nourishment.

In the first four groups, the first three groups were given 50%, 33% and 25% diluted solutions of Haelan 851, Platinum Formula, oral nutritional beverage to replace drinking water. The fourth group was given water only as the negative control.

In order to prevent the Haelan 851, Platinum Formula, oral nutritional beverage from deterioration, the solution was changed twice a day after the cover of the bottle was opened and the solution was diluted before each use. The concentrated bottle of Haelan 851, Platinum Formula, oral nutritional beverage was stored at the temperature of 4° Centigrade after opening.

Observation was carried on continuously for 15 days and the body weight before and after nutrition with the Haelan 851, Platinum Formula, oral liquid beverage was recorded. The extent of weight gain was considered as an index and chi square analysis was performed. The results of these tests are shown in the table below.

Somatotrophic Effect of Haelan 851, Platinum Formula, Oral Nutritional Beverage on Dystrophic Mice

Group & % Haelan	Body Weight Before Haelan 851 Nutrition	Extent of Weight - Gaining After Haelan 851 Nutrition (g, X+ SD)		
		3 Days	8 Days	15 Days
1-50 %	16.63 ± 0.93	4.00 ± 1.45***	10.18 ± 1.64***	11.08 ± 1.76**
2-33 %	16.58 ± 0.95	3.46 ± 0.56***	7.71 ± 0.94*	10.29 ± 0.81**
3-25 %	16.67 ± 0.94	3.46 ± 0.58***	7.21 ± 1.80	10.31 ± 1.21*
4-0 %	16.67 ± 0.94 Dystrophic Control Group	2.29 ± 0.75	6.64 ± 1.84	8.42 ± 2.03
5-0 %	16.67 ± 0.94 Normal Control Group	4.46 ± 0.40***	10.54 ± 1.39***	12.21 ± 1.03***

* In comparison with Group 4, $P<0.05$
** In comparison with Group 4, $P<0.01$
*** In comparison with Group 4, $P<0.001$

SUMMARY

The results of the tests show that the growth of the mice can be retarded and dystrophy can be induced if the rabbit's fodder is given to mice. If the mice with dystrophy are given Haelan 851, Platinum Formula, oral nutritional beverage simultaneously, the nutrition status can be improved evidently, growth promoted, and mice are made to approach or reach the normal level.