

any biochemical parameters concerned with liver function.

## Results

The weight gain during different periods of the experiment and the relative weight of the liver to the body weight are depicted in Fig. 1 and Table I. The weight gain for AFB<sub>1</sub>-fed animals was notably less than their normal counterparts given only the vehicle. The group that was fed A10 (Group 3) gained less weight during 8 weeks of AFB<sub>1</sub> dosing and the immediate post-dosing period, than the group given only AFB<sub>1</sub> (Group 2). From 11 weeks to 61 weeks, both these groups gained more or less equal weights. After 61 weeks, many animals from Group 2 lost weight, but the average weight loss was only about 3g. On the other hand, all animals in Groups 3 gained weight after 61 weeks. There was no statistically significant weight difference between Groups 2 and 3 at any stage of the experiment.

The influence of body weight on tumour formation was analysed by comparing the average weight of tumour-bearing rats in the A10 group to the average weight of non-tumour-bearing rats in

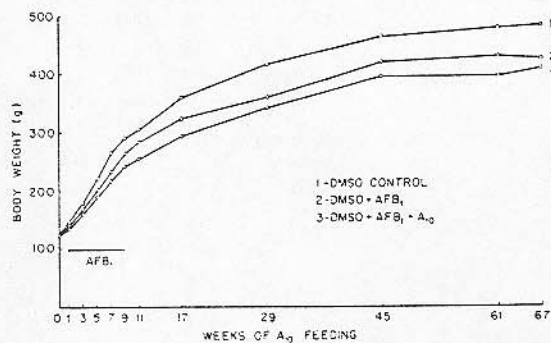


Fig. 1 Weight gain for different groups of rats during the experiment. Zero point corresponds to the time when A10 feeding was started.

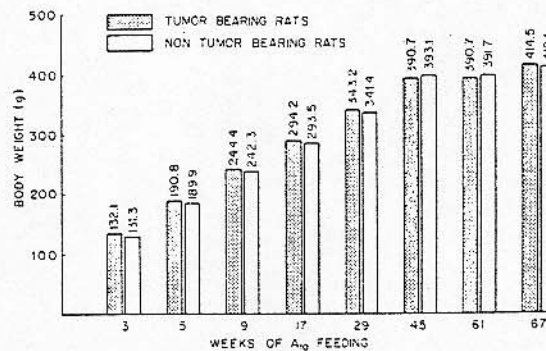


Fig. 2 The weight differences between the tumour-bearing rats (total 13) and non-tumour-bearing rats (total 11) in the A10 group (Group 3) at different stages of the experiment.

the same group. The average weights of both categories of rats were almost equal throughout the experiment. A similar comparison within the control group was not very feasible because there was only one rat in that group without any tumour.

The average relative weight of the liver was considerably higher in Group 2 as compared to both the other groups. At the same time, a statistically significant difference was not observed between the DMSO controls and the test group for their average relative weight of the livers.

There was no death related to AFB<sub>1</sub> toxicity or neoplastic disease of any system. Three animals were excluded from the experiment (one from Group 2 and two from Group 3) due to suspicious error in AFB<sub>1</sub> dosing. One rat in Group 1 had a large abscess on the lower jaw area and was sacrificed when it looked very sick and another one from the same group died of pneumonia.

Regarding hepatic neoplasms, 1% of A10 fed in diet 1 week prior to the challenge of carcinogen and continued thereafter resulted in a substantial inhibition in tumour development in Fischer rats (Table II). One mg of AFB<sub>1</sub> administered over a period of 8 weeks produced neoplastic lesions in 96% of the control animals; all of them carrying multiple lesions ranging from discrete nodules to