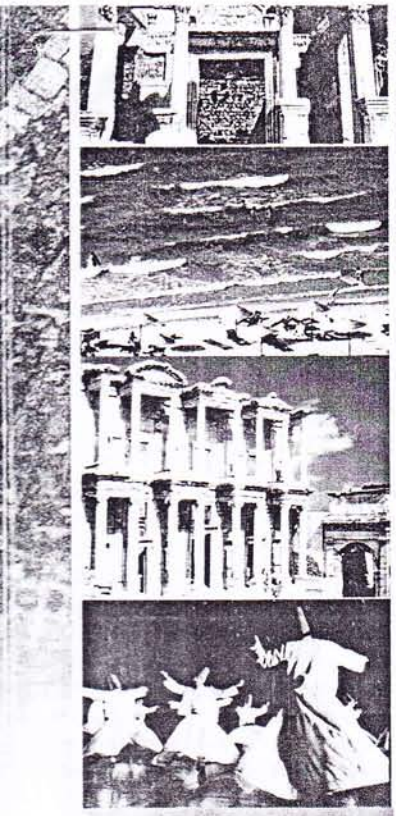

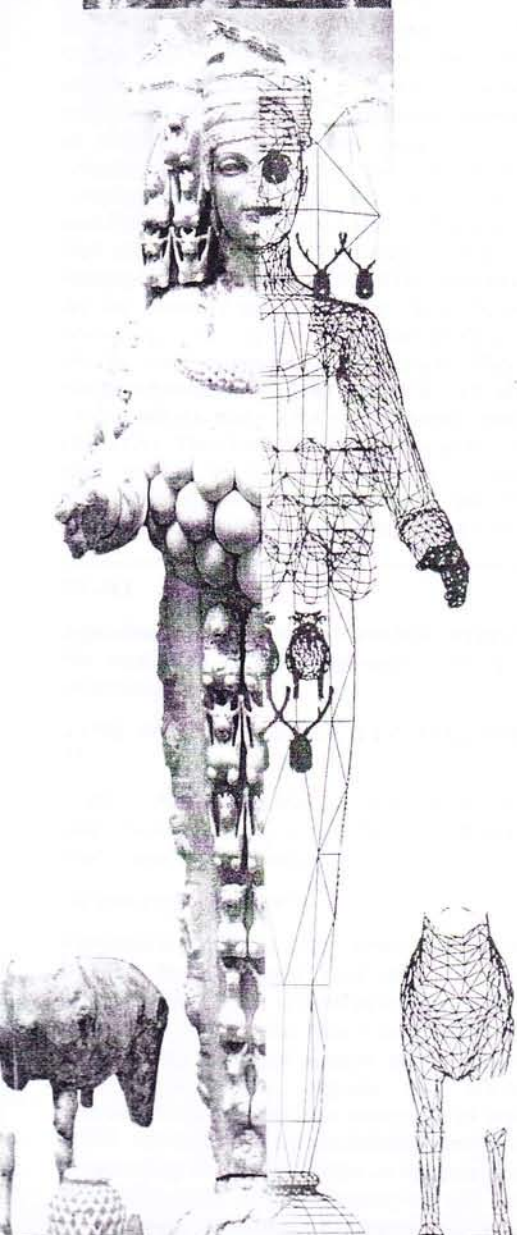

4th Asian - Pacific International Congress of Anatomists

7-10 September 2005, Kuşadası - Turkey

under the auspices of
Turkish Society of Anatomy (TSA)
and
Turkish Society of Histology & Embryology (TSHE)

Abstract Book

PP-614

The study on apoptosis of the liver cells white rats due to different exposure times and dosages of aflatoxin B1

YANWIRASTI, ZAIN MSB *, REVILLA Gi*, AMIR A***

Departments of Anatomy and Biology**, Medical Faculty, Andalas University, Indonesia*

lpiu_fkua@yahoo.com

Epidemiological evidence has been reporting a relationship between dietary aflatoxin B1 (AFB1) exposure, development of human primary hepatocellular carcinoma (HCC). However, the correlation between exposure of AFB and the evidence of apoptosis in the liver and development of HCC has not been elucidated.

For this purpose, we used an animal experiment with 96 white rats (*Rattus Novergicus*). Adult healthy white rats were divided into four groups of 24 rats each, based on the dosages of AFB1 given. Each group was divided further into three subgroups of eight rats based on the length of exposure time to AFB1.

Four dosages of AFB1, were introduced orally everyday into different groups, consisted of 0μg, 10μg, 15μg and 20μg, dissolved in 0,2 ml propylene glycol. Three subgroups received the dosage for 12 weeks, 16 weeks, and 20 weeks. At the end of the experiment, the rats were sacrificed. Liver cells with apoptosis were scrutinized using apoptag method (peroxidase insitu apoptosis detection kit) and liver cell damages were examined using histological slices stained by haematoxillin eosin.

In our observation, we found that there was no significant difference between apoptosis of the liver cells in different exposure time or dosages of AFB1. It means that the highest dosages and the longest time exposure AFB1 inhibited apoptosis. May be it was caused by mutation of gen p53 which we could see dysplacia of the liver cell in histological slices.

Key words: apoptosis, aflatoxin B1, dysplacia.