

KOM CHANGES IN RNP CONTAINING COMPONENTS OF CELL NUCLEI AFTER 3-METHYLCHOLANTHRENE TREATMENT. ULTRACYTOCHEMICAL AND BIOCHEMICAL STUDIES

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Adult rats were treated with a single dose of 3-methylcholanthrene (3-MC) and killed 24 and 48 hr later. Part of the livers were studied by conventional electron microscopical methods and by RNP cytochemistry according to Bernhard's technique. Another part of the livers was used for isolation of hnRNP particles according to the technique of Samarina *et al.*

The results of ultracytochemical studies indicate that the number of perichromatin fibrilles and perichromatin granules are increased after 3-MC treatment. These structural elements of nuclei are analogous to hnRNP. Changes in the amount of interchromatin granules were smaller. The biochemical observations showed that higher amounts of hnRNP particles could be extracted from the livers of 3-MC treated rats. On the basis of electron microscopical and biochemical results it is proposed that hnRNA synthesis is increased in rat liver cells after 3-MC treatment.

KON KINETICS OF SOME IMMUNOLOGICAL AND BIOCHEMICAL CHANGES OF IMMUNOCOMPETENT CELLS DURING TUMOUR GROWTH IN RATS

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The kinetics of lymphocytic responses in the peripheral blood, spleens, regional lymph nodes and thymuses of rats were investigated at different time intervals after intramuscular MC-1 tumour inoculation. Electrophoretic mobility of lymphocytes was analyzed by means of a fully automated cell electrophoresis apparatus (PARMOQUANT). Purine metabolic enzyme activity and the percentage of active lymphocytes determined by the nucleolar test in individual lymphoid organs, have been followed simultaneously.

Changes in the ratio of slow and fast moving cells of lymphoid organs in correlation with adenosine deaminase activity and percentage of active lymphocytes was interpreted as the response of immunocompetent cells to tumour growth.

KOR AMINO ACID SEQUENCE HOMOLOGY BETWEEN PROTEIN PRODUCTS OF ONCOGENES AND HORMONES (V-MYC - GASTRIN AND OXYTOCIN, V-SIS - SECRETIN)

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Computer analysis of the total and so-called dense similarities was used to compare the amino acid sequences of 8 retroviral oncogenes and 26 protein hormones. Sequence homology was found between v-myc, the transforming protein of MC29 virus, and human gastrin and oxytocin, and also between v-sis, the transforming protein of simian sarcoma virus, and secretin.
