

Chronicle

POLISH HISTOCHEMICAL AND CYTOCHEMICAL SOCIETY

Seventh Annual Meeting

Szczecin

May 30 — June 2, 1968

ASSOCIATE PROFESSOR ALEKSANDRA KRYGIER-STOJAŁOWSKA

Department of Morbid Anatomy
The Medical Academy, Szczecin

CHAIRMAN

DR W. PARAFINIUK

Department of Morbid Anatomy
The Medical Academy, Szczecin

TREASURER

DR B. POHNKE

Department of Morbid Anatomy
The Medical Academy, Szczecin

COMMITTEE MEMBER

ALEKSANDRA TUSTANOWSKA, M. SC.

Department of Morbid Anatomy
The Medical Academy, Szczecin

SECRETARY

The Seventh Annual Meeting was organized by the Szczecin Branch of the Polish Histochemical and Cytochemical Society. All the sessions took place in the old castle of the Slav Pomeranian Dukes. The Meeting included a symposium (6th) devoted to degeneration and atrophy in their diverse aspects in normal and diseased animal organism. In all 3 major papers and 35 communications were presented.

Among the Meeting attendants there were guests from the German Democratic Republic. The exquisite care and hospitality of the Organizing Committee resulted in creation of a sociable atmosphere at the Meeting.

Totally normal features of the bile canaliculi and of the space of Disse prove that the fatty degeneration of the liver is only apparent. In the period when the fish loses its fat reserves the normal picture of the hepatic cells is restored.

6. *Electron microscopic and cytochemical studies on the transformation of human neonate liver cells into giant cells.* HALINA SŁOTWIŃSKA and V. DESMET. Department of Histology and Embryology, Pomeranian Medical Academy, Szczecin, Poland, and Laboratorium voor Histochemie en Cytochemie, Akademisch Ziekenhuis St. Rafaël, Leuven, Belgium.

Histochemical and electron-microscopical studies were performed in order to elucidate the mechanism of the transformation of liver cells into giant cells during neonate hepatitis not complicated by the congenital atrophy of the bile duct. Eight cases of the disease were studied.

Both the authors' observations and literature data show that the giant cells arise by growth of the hepatocytes and budding of their nuclei. In this disease the hepatocytes are not capable of division. They form giant cells which subsequently degenerate.

It is considered that the transformation of hepatocytes into giant cells is a specific type of nucleoprotein metabolism disturbance. This may be due to numerous factors capable of changing the structure of nucleoproteins, such as viruses, blood group incompatibility, genetic abnormalities, and the effect of drugs.

7. *Histochemical and histoenzymatic changes of the glia in hepato-lenticular degeneration and in liver cirrhosis observed in tissue culture.* KRYSZYNA RENKAWEK, ZUZANNA KRAŚNICKA, M. ŚMIAŁEK and M. J. MOSAKOWSKI. The Centre for Experimental and Clinical Medicine, Polish Academy of Sciences, Warszawa, Poland.

The aim of the study was to examine the effect of blood sera from patients affected by liver changes (Wilson's disease, liver cirrhosis) on isolated glia elements grown in tissue culture. Particular attention was paid to morphological and histoenzymatic changes occurring in the glia in these conditions.

In the study cerebellar glia cultures obtained from newborn rats after the 3rd—4th and 6th—7th day of life were used. The material was divided into 4 experimental groups:

in Group 1, blood serum from patients suffering from Wilson's disease was added to the culture medium. The cultures were kept in thus changed media for 3—14 days;

in Group 2 blood serum from patients affected by liver cirrhosis was mixed with the culture medium. The culture was grown in these conditions for periods between 24 hours and 4 days;

in Group 3 50—100 mg ammonium chloride per 100 g culture medium was applied, the cultures being kept in this mixture for 3—7 days;

in Group 4 49 mg of copper sulphate per 100 g culture medium was added, the cultures being kept in this solution for 1 to 7 days.

The experimental material was stained with toluidine blue and cresyl violet and processed histochemically with Sudan black B, Alcian blue, the PAS method, and PAS-dimedone, and with the methods for enzymes: succinate, glutamate and glucose-6-phosphate dehydrogenase and acid phosphatase.

Results: the morphological changes consisted in the transformation of the cultured glia cells that are pathognomonic of liver diseases: the Opalski cells and Alzheimer type II cells. Also numerous intermediate forms were observed. From the histochemical viewpoint the Opalski cells were PAS-positive and negative if processed with the PAS-dimedone method or stained with Sudan black B. They also showed the presence of PAS-positive granules and stained with Alcian blue. The intermediate forms were rich in PAS-positive material.

The histoenzymatic methods demonstrated in the Opalski cells and intermediate forms a strong acid phosphatase activity and an increased activity of dehydrogenases.

8. *The effect of ionizing radiation on some stages of protein and RNA synthesis in the cells of the ventral horns of the mouse spinal cord after total body irradiation.* Z. OLKOWSKI. Department of Histology and Embryology, Silesian Medical Academy, Zabrze — Rokitnica, Poland.