INDUCTION OF MAMMARY CANCER IN RATS WITH CYCASIN: A PRELIMINARY REPORT

Kiyotaka Kawaji, Ryo Fukunishi, Shin-ichi Terashi, Jyo Higashi, and Kenshi Watanabe
(1st Department of Pathology, Kagoshima University School of Medicine*)

This preliminary report deals with the induction of rat mammary cancer in an experiment with cycasin, a glucosamine which was prepared from Cycus revoluta nut.

Oral administration of 4 mg/kg body weight/day of cycasin was given daily to 10 female rats of Sprague-Dawley strain, 120 days old. Two mammary cancers were detected at 146 and 239 experimental days. In the first case, metastasis to the lung was found at autopsy. At the time (12th month of the experiment) of this report, no other malignant tumor has been found in any of the experimental animals.

It has been known that the incidence of spontaneous mammary tumors in Sprague-Dawley female rats is relatively high. In our colony, no spontaneous mammary cancer has been found in 46 untreated female rats of Sprague-Dawley strain of one year duration, while two mammary fibroadenomas were detected in the animals. The results may suggest that cycasin accelerates the induction of mammary cancer in rats. Further experiments are going on at our laboratory.

(Received March 26, 1968)

EXPLANATION OF PLATE LXVIII

Photo 1. Mammary cancer in Case 1, showing a large tumor mass at the right chest.
Photo 2. Metastasis to the lung in Case 1.
Photo 3. Histology of the mammary cancer of Case 1, showing metastasis to the lung.
Photo 4. Histology of the mammary cancer of Case 2, showing a well-differentiated adenocarcinoma.

* Shiroyama-cho, Kagoshima (川路浦高，福岡県，東，渡辺研之).
1) Cycasin was generously provided by Dr. Akira Kobayashi, Kagoshima University School of Agriculture.