

ABSTRACTS

EXPERIMENTAL AND CLINICAL STUDIES ON THE SENSITIVITY TEST FOR CARCINOSTATIC AGENT FROM THE CYTOLOGICAL POINT OF VIEW

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The cytological change by several carcinostatic agents were studied with E. A. T. cells and human cancer cells by Papanicolaon stain, supravital stain and enzyme stain for L. D. H. system.

The possibility for the sensitivity test of carcinostatic agents were also studied from the cytological point of view.

1) By Papanicolaon stain, cytoplasmic vacuolization were considered as the most appropriate identified basis to find cytological change.

2) And the degree of cytoplasmic vacuolization by carcinostatic agents were at the rate of the decrease to the growth-rate of transplanted tumor in mice.

3) But neutral red and eosin attempt by supravital stain were identified to be not suitable to the sensitivity test of carcinostatic agents.

4) For discovering the inhibition of the enzyme activity in the cells by carcinostatic agents, L. D. H.-D P N diaphorase stain were employed. And they were found to be utilized for sensitivity test of carcinostatic agents. Especially on the degenerative cells, the decrease of enzyme activity could be showed by the diminish of the staining reaction. This conclusion is the same as the results of S. D. I. method by Kondo.

5) A smaller number of tumor cells was enough to this enzymorphological method than S. D. I. method. So it may be useful in clinical work.