

THE RESULTS OF BREAST CONSERVATIVE THERAPY IN EARLY BREAST CANCER IN GREATPOLAND CANCER CENTRE

E. Adamiak, M. Matecka-Nowak, G. Stryczyńska, A. Wojciechowska-Łącka

Radiotherapy, Greatpoland Cancer Centre, Garbary 15, 61-866 Poznań, Poland

We are presenting results of our treatment during 3 years (1993-1995) in Greatpoland Cancer Centre.

We treated 67 women with early breast cancer performing breast conservative surgery and radiation therapy. For treatment we chose women with breast tumor up to 3 cm in diameter and unpalpable axillary lymph nodes. The therapy consisted of quadrantectomy and axillary dissection and then radiation therapy.

Chemotherapy was used for patients with histologically positive lymph nodes metastases. Due to the local recurrence the mastectomy was performed in four patients. Five women were treated with cytostatics because of metastases to the liver and bones.

Three women died. The other women remain in the periodical observation in our hospital. These results have a preliminary character, because of the short follow up.

MEASUREMENT OF RADIOSENSITIVITY IN CERVICAL TUMOURS ON THE BASIS OF THE COMET ASSAY

B. Biesaga, A. Gasińska

Laboratory of Radiation Biology, Department of Radiation Therapy, Centre Oncology Cracow, Poland

Purpose

The aim of the study was the radiosensitivity assesment in squamous cell carcinoma (SCC) of the cervix on the basis of the comet assay in which the number of primary and residual DNA damage after 2 Gy dose of the radiation was measured.

Material

19 SCC were studied. The patients were not treated with chemo-or radiotherapy before biopsy.

Method

Single cell suspension from a biopsy was made by digesting with collagenase. The cell suspension was irradiated with doses 0-4 Gy. After the irradiation (initial DNA damage), or after 15 and 60 minuts of incubation at 37°C (residual DNA damage) cell suspension was mixed with poliakrylamide gel. Smears were made and cells were lysed with alkalic solution. Then electrophoresis was performed. The amount of damaged DNA stained with DAPI was measured with image analysis and Comet

3.0 programme. The measure of the DNA damage was tail moment, that is the length of comet tail and intesitivity of its fluorescence.

Results

The differences in the number of primary (0 Gy), initial and residual DNA damage in the examined tumours were shown. Linear relationship between number of initial DNA damage and radiation dose was obtained. Taxonomic analysis of initial DNA damage allowed for identification of 3 groups of patients of statistically different sensitivity. After 2 Gy dose of radiation, statistically differences in residual DNA damage after 0 and 15 minuts and 0 and 60 minuts were shown. The differences between patients were shown on the basis of the efficacy of the DNA damage repair (range 8.66% - 91.73%).

Conclusion

The comet assay seems to have the potential to be used as a predictive assay of individual radiosensitivity.