

AgNOR-dots per cell – 3.1 ± 0.6 , sex chromatin containing cells – 100%. In DIN1c the mean number of AgNOR-positive cells was 48.5 ± 3.6 , AgNOR-dots – 3.9 ± 0.45 , cells with sex chromatin – 89%. In DIN2 the mean number of AgNOR-positive cells was 60.4 ± 2.5 , AgNOR-dots – 5.5 ± 0.4 , sex chromatin containing cells – 86%. In DIN3 the mean number of AgNOR-positive cells was 87.4 ± 3.6 , AgNOR-dots per cell was 7.8 ± 0.6 , sex chromatin containing cells – 74%.

Conclusion: AgNOR counts are relevant for differentiation between the grades of DIN. Therefore, objective and reproducible data obtained by AgNOR analysis may allow better evaluation of the prognostic significance of these lesions. This may give insight into the biological background of DINs, grade and progression and may also underlie the independent prognostic value of AgNORs.

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Risk of breast cancer following mantle radiotherapy for Hodgkin's disease

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Background: Radiation therapy was the first treatment modality to demonstrate cure of Hodgkins Disease (HD). Women with HD who receive mantle radiotherapy (MRT) are at increased risk of developing breast cancer (BC) but this association is difficult to quantify.

Methods: The medical records of female patients who received MRT for HD between 1974 and 1998 inclusive were retrospectively reviewed.

Results: Of the one hundred and twelve women on the database, eight developed BC within a follow up period of 0.2–29 years (median 12.3 years): 3 of 59 patients aged <30 at the time of MRT, 5 of 21 patients aged 30–40 at MRT and 0 of 32 patients aged >40 at MRT. The median age of MRT was 28 years (min13 – max77 years), median time to BC 17.2 years (min11 – max27 years) and median age of BC 40 years (min22 – max58 years). The actuarial incidence of breast cancer in 15, 20 and 28 years following MRT (Kaplan-Meier tables) was 5%, 15% and 30% respectively. This rate remains stable when correlated with the age of MRT (log rank test for trends=0.547). The breast cancer incidence within the current age groups <40, 40–50 and >50 is 11.4%, 7.5% and 2.7% respectively.

Conclusions: Long-term survivors from HD that received MRT are at very high risk of developing breast cancer. As these long-term survivors are more likely to have received MRT at a young age and may develop BC before they reach the recommended breast screening age, it is essential that they are identified as a high risk group to be offered breast screening.

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Clinical and prognostic features of myoepithelial carcinoma

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Introduction: Myoepithelial cell carcinoma of the breast is a rare tumour of controversial histogenesis. Little is known about its natural history and long term outcome following treatment.

Methods: All patients with myoepithelial carcinoma treated at our institution between 1970 and 2001 were studied with respect to pathological features, outcome and prognosis.

Results: Six patients were identified. The median age was 60 (40–66) years and median follow-up was 34.5 months (range 14–76) months. Four tumours were T1 and one was T2 (one tumour size unknown). There were two moderately differentiated and three well-differentiated tumours (grade could not be assessed in one patient). Oestrogen and progesterone receptor could be assessed in five patients and all were negative. Primary treatment was wide local excision with clear radial margins. Lymph node assessment was negative in all patients. One patient received adjuvant radiotherapy. Three patients developed local recurrence at 15, 38 and 50 months and two patients developed distant metastasis at 30 and 79 months. The local recurrences were treated by further excision but two patients developed distant metastasis at intervals of 15 and 26 months respectively. Two patients have died of the disease and four remain well. The 2 year and 5 year survival was 88% (SE=6) and 55% (SE=16) respectively. Large tumour size is a prognostic indicator of poor outcome.

Conclusion: Myoepithelial carcinoma of the breast adopts an aggressive clinical course with an outcome comparable to poorly differentiated adenocarcinoma of the breast.

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Risk factors for early recurrences after conventional- or high-dose adjuvant chemotherapy in breast cancer patients with extensive lymph node involvement

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Purpose: There is limited knowledge of risk factors for breast cancer recurrence within 2 years. This study aims to predict early failure and identify high-risk patients, for prognostic and therapeutic purposes.

Experimental design: 739 patients from a randomized trial were studied, who had: 4 or more positive lymph nodes, age under 56, no distant metastases and no previous other malignancies. After complete surgical treatment, they received conventional-dose anthracycline-based chemotherapy or a high-dose scheme of anthracycline-based plus alkylating chemotherapy. We assessed clinical and (immuno)-histological parameters to predict recurrence within 2 years.

Results: Early failure occurred in 19% (n=137) and was associated with young age, large tumors, high histological grade, angio-invasion, apical node metastasis and 10 or more involved nodes. ER, PR and p27 negativity, HER2 overexpression and p53 positivity also predicted early failure. The surgical or chemotherapy regimen and histological type did not. Grade III, 10 or more involved nodes and ER negativity were independently associated with early failure and together identified a subset of patients (7%) with 3-fold increased early failure. Patients under 40 after high-dose treatment and HER2 positive patients after conventional-dose chemotherapy had decreased early failure. Median survival after early failure was limited to 0.7 years median. ER and PR negativity and visceral relapse predicted poor prognosis.

Conclusions: With risk factors for early failure a predictive model was formed. Young patients benefit from high-dose alkylators and patients with HER2 positive tumors benefit from increased anthracycline dosage. These findings are useful in tailoring treatment for breast cancer patients.

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Survival analysis and prognostic factors of breast cancer in Korea

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Background: Breast cancer is the most frequently occurring cancer in women in the Korea and its incidence is rapidly increasing in the past decade. Although, the actuarial survival data on western women abound in medical literature, large collections of statistics from rising prevalence areas in the orient is lacking. We have established a comprehensive breast cancer data base since 1985. We have analyzed the data according to clinical characteristics, survival and prognostic factors.

Material and Method: Nine hundred and eighty nine consecutive breast cancer patients first diagnosed at the Dongsan Medical Center, Keimyung University between January 1990 and December 2001 were included. Prognostic analysis was performed in 918 patients who had nondisseminated invasive carcinoma and had undergone primary surgery. Risk factor analyses for disease free survival include age, primary tumor size, number of metastatic axillary lymphnode, histologic grade, nuclear grade, family history, lymphovascular invasion and hormonal receptor status. The influence of prognostic factors on survival was explored by Cox's proportional hazard regression model using SPSS 11.0 software.

Results: The peak incidence age was in the 40's and the mean age at diagnosis was 48.1 years old. Forty four patients (4.4%) were in stage 0, 218 (22.0%) in stage I, 572 (57.9%) in stage II, 112 (11.4%) in stage III, and 22 (2.2%) in stage IV. The early breast cancers (stage 0 and I) were presented in 26.4%. The 5 and 10 year overall survival rates were 79.7% and 65.4%, respectively and 5 and 10 year disease free survival rates were 73.8% and 68.8%. Multivariate analysis showed that the age, tumor size, and axillary lymphnode involvement remained as significant prognostic factors for the time to recurrence and overall mortality.

Conclusions: This study showed that the peak age of the breast cancer in Korea was younger than that seen in Western countries. But the survival rate was similar to their Western counterpart despite the fact that our patients comprised of smaller proportion of early breast cancers. The age at the time of diagnosis, the tumor size, and the number of metastatic axillary lymphnode were confirmed to have independent influence on overall survival and disease free survival.