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LOCAL RECURRENCES (L.R.) AFTER BREAST CONSERVATIVE THERAPY (B.C.T.) : DIAGNOSIS, TREATMENT, PROGNOSIS

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From 1980 to 1988, 628 women underwent B.C.T. The median age was 51 years. T.N.M. classification showed : 85 T0, 271 T1, 221 T2 and 51 Tx.
154 quadrantectomies, 474 lumpectomies and 611 axillary dissections were performed. All the women had breast irradiation (46 - 50 Gy) with a boost of 10 - 14 Gy. Lymph nodes were treated in the case of inner tumors or axillary involvement. 202 and 399 women respectively received chemotherapy and hormonal therapy. D.I.C. was found in 491 cases, pure D.C.I.S. in 44, L.I.C. in 55 and other types in 38. 35 tumors were multifocal. The excision quality was good in 567 cases, incomplete in 33, doubtful or unknown in 28. In situ component was present in 243 cases. 150 tumors were pN+. (24 %).
With a 75 months median follow-up, 38 L.R. occurred (6 %), including 34 isolated, 3 with regional recurrence and one with liver metastases. 15 were true L.R., 9 marginal R., and 10 occurred elsewhere in the breast ; two were multicentric, one inflammatory and the last unspecified. 12 L.R. occurred before 2 years, 17 from 2 to 5 years and 9 after 5 years. The 34 isolated L.R. were discovered by the patient in 13 cases, by clinical exam in 15, and only by mammography in 5 cases. 33 were invasive and 5 intraductal ; 10 were multifocal. 32 women had mastectomy (4 with reconstruction and 9 reirradiation on the chest wall); 5 had new conservative treatment (with in 3 cases a second L.R.). One had only chemotherapy. In 6 and 8 cases respectively, after local treatment, chemotherapy and Tamoxifen were prescribed. The risk factors of L.R. were the incomplete excision ($p = 0.001$), the age under 40 years ($p = 0.01$) and the small size of the breast. The T. and pN status, and type of surgery or histological subtype are not significant. 16 out 38 women (42 %) developed metastases and 10 died. The occurrence of metastases is correlated with precocity of L.R. : 67 % if less than 2 years, 44 % if 2 - 5 years, and only 12.5 % if more than 5 years.

Key words : Breast Cancer - Local recurrence - Prognosis

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PROGNOSTIC FACTORS FOR MORBIDITY OF AXILLARY TREATMENT IN BREAST CANCER. Terhaard, C.H.J., Jobsen, J.J., Meerwaldt, J.H., Noach, P., Van Reijn, M., dept. of Radiotherapy, Postbus 50.000, 7500 KA ENSCHEDE, The Netherlands.
Morbidity of the axillary treatment in breast cancer patients was evaluated in 1045 patients. During follow-up visit a questionnaire was gone through and patients were examined including measurement of the circumference of the upper and forearm. Follow-up time was 9 months to 20 years (mean 5 yrs). The axilla was treated by surgery and postoperative radiotherapy (n=338, 32%, group I), by surgery alone (n=667, 64%, group II), or radiotherapy only (n=40, 4%, group III). Radiation dose in group I varied between 40Gy (16x2.5Gy) and 50Gy (25x2Gy), and between 40 and 70Gy in group III. To establish the degree of morbidity of the involved arm a combination of 1) extent of arm oedema, 2) reduced function of the arm, and 3) complaints as pain on movement, sensory deficit, is used. The degree of morbidity (grade 0-3) highly significantly correlated with treatment. Grade 3 morbidity was seen in 17% in group I, 3% in group II and 3% in group III ($p=0.0001$). Grade 0 morbidity was shown in 37% in group I, 65% in group II and 58% in group III. Extensive postoperative serous discharge in the axilla, requiring frequent punction (11%), significantly increased morbidity in group I ($p=0.05$). Fibrosis in the axilla (5%) and infection of the involved arm (6%) contributed highly significant to the degree of late morbidity, independent of the treatment group. No correlation between morbidity and age, histopathology, T-stage, adjuvant chemotherapy or locoregional recurrence was found. A dose-response relationship, was shown in group III only. Patients treated with a total dose of > 50Gy showed increased morbidity compared to 50Gy (arm oedema all grades 25% vs 7% resp., $p=0.05$). In conclusion combination of surgery and radiotherapy to the axilla is the main cause of increase of degree of mordibity. The risk of morbidity is increased by considerable serous discharge in the axilla, fibrosis of the axilla and infection of the arm, independent of the chosen treatment.

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DUCTAL CARCINOMA IN SITU (DCIS) OF BREAST: A REVIEW OF 58 CASES.

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The mammary intraductal carcinoma (DCIS) is pathologically characterized by cells confined to the ductal structures without any evidence of invasión of the ductal ephitelial basal membranes. The incidence range of the DCIS was 2.1% the all ductal carcinomas in this retrospective study. The detection was made by mammography, preclinical steps. in 26 patients (46.4%). 11 patients (19.5%) were T1, 16 (28.5) were T2 an 3 patients (5.3%) were T3.In two patients the tumor size was unknown; 28 patients (48.2%) were premenopausal and 30 (51.7%) were postmenopausal. Total mastectomy was performed in 52 patients (89.6%), monocentric tumor in 44 cases (86.2) and multicentric tumor was demostrated in 7 cases (13.7%). Tumorectomy was made in 6 patients (10.3%), in all these cases the tumoral resectión was complete. Axilar clearance was made in 36 patients (62.0%) and in only 2 cases (6.0%) with positive lymfadenopathies. The histologycal study was made too.
In 50 patients (n=50), 8 patients were lost, during the follow up period (median 70 months), 6 patients (12%) developed loco-regional recurrences, all of them with total mastectomy. Overall free of disease rate was 78% (median 65 months) and the overall survival rate was 92% (median 72 months).
The epidemiologics, pathologics and cellular biologics studies, demostrate than breast cancer "in situ" represent a large spectrum of diseases with a different biologic behaviour from a least activity tumor to a quick infiltrating carcinoma.

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PATHOLOGICAL RESULTS FOLLOWING RE-EXCISION IN BREAST CONSERVING SURGERY. Grimard L, Genest P, Zaharie C, Mirsky D. The Ottawa Regional Cancer Centre, Ottawa.

Between Jan.'88 & Dec.'90, 181 of 915 patients with primary breast cancer underwent re-excision for the following reasons: 89 for positive or close margins(<2mm), 26 for multi-centricity; 41 at physician's and/or patient's request; & 25 for other reasons (biopsy intent:17,unknown:8) Residual disease was identified in 48% (87/181) of patients undergoing re-excision: 67 invasive & 20 noninvasive. Among the 89 patients having re-excision for positive or close margins, 37 had a mastectomy and 52 wider excision. Residual disease was seen in 55% (48/89) of re-excision specimens: 68% (25/37) of mastectomies & 44% (23/52) of wider excisions. There was tumour in 15 of 26 (58%) re-excisions for multicentricity. In the remaining 66 patients residual disease was found in 36% (24/66): 11/22 mastectomies, 13/44 wider excisions. Residual disease was identified in 47% (34/73) of invasive ductal carcinomas; 52% (35/67) of invasive ductal carcinomas with an intraductal component; & 13 of 22 invasive lobular carcinomas. We conclude that re-excision is of questionable benefit.

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SELECTIVE INTERNAL MAMMARY NODAL IRRADIATION WITH CUSTOMIZED, VIRTUALLY SIMULATED, WIDE TANGENTIAL FIELDS. Marks LB, Hebert M, Bentel G, Sherouse G, Spencer D, Sontag M, Ray S, Prosnitz LR. Department of Radiation Oncology, Duke University, Durham, NC, USA

Background: Irradiation of the internal mammary nodes (IMN) during therapy for breast cancer is controversial. While these nodes are frequently involved, clinical failure in these nodes is uncommon, and their irradiation with "wide tangents" can increase cardiac toxicity for left-sided lesions. We have used 3-dimensional treatment planning and virtual simulation to design partly wide tangential fields (PWTF) that selectively irradiate the superiorly placed IMN while excluding the heart from the inferior portion of the field.
Methods: Patients are immobilized in a hemi-body foam cradle and a CT study is performed (5 mm spacing). The information is transferred to the treatment planning computer wherein the IMN, chest wall, heart, and lungs are identified. Customized PWTF are designed with the 3-D Virtual Simulator.
Results: We have successfully designed customized wide tangential fields for several patients with left-sided breast cancer. These fields successfully include the superiorly placed internal mammary nodes while the heart is excluded. A formal dose volume histogram analysis of the structures of interest will be presented.
Conclusions: While the controvery surrounding the internal mammary nodal irradiation continues, the technique described represents an attractive compromise. We are able to selectively irradiate the superiorly placed internal mammary nodes (which are the ones most frequently involved), while substantially reducing the potential for cardiac toxicity.

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PAGET'S DISEASE OF THE NIPPLE

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The treatment of Paget's disease without a palpable breast lump remains unclear because of a paucity of knowledge concerning its pathogenesis and malignant potential. In an attempt to determine the optimal surgical approach of this uncommon malignancy we have reviewed the clinical and pathological features of 35 cases of Paget's disease presenting without palpable lumps during the past 15 years. A total of 35 women were treated representing 1.2% of all primary breast cancers. Treatment was by simple mastectomy (25 cases), cone excision of the nipple - areola (8 cases), and tamoxifen (2 cases). DCIS was found in 33 operative specimens (94.3%), 6 had associated invasion. The DCIS was predominantly large cell / comedo in type and was multifocal in six cases (17 per cent). At a median (range) follow - up of 49 (16 -82) months, four of the eight patients treated by cone excision have developed a local recurrence and two of these have also developed metastases. Two of the 25 patients who underwent mastectomy developed recurrence. The 50% recurrence rate following conservative surgery, the high rate of invasive components found (17%) of mastectomy specimens supports the simple mastectomy.