

350

# BREAST CANCER IN 341 ELDERLY WOMEN: A RETROSPECTIVE ANALYSIS FROM A SINGLE INSTITUTION.

**Rapetto L.**, Queirolo P, Costantini M, Simoni C, Venturino A, Gardin G, Catturich A, Amoroso D, Rosso R. - Istituto Nazionale per la Ricerca sul Cancro, Genova (Italy). Elderly cancer patients (age >70 years) are generally excluded from entry to clinical trials and the applied diagnostic and therapeutic measures are often suboptimal. We retrospectively analyzed 341 elderly women with breast cancer (EBC) evaluating: 1. tumor detection modality (incidental, i.e. during a medical check up for other reason; by physician; by patient); 2. diagnostic workup; 3. locoregional and systemic treatment modalities. Diagnostic and therapeutic delay i.e. the interval between patient's awareness of a breast nodule and first diagnostic and/or therapeutic modality was <1 month in 41.1% of pts, 2-4 months (mos) in 22.9%, 5-8 mos in 10.7%, >9 mos in 25%. In our series 125 out of 341 patients did not received adequate staging and among fully staged women the majority (74.1%) presented localized disease (stage I-II). In the other 216 pts, 41% were stage I, 33% stage II, 20% stage III, and 6% stage IV; ER and PgR status were unknown in 210 and 233 respectively: ER+/- and PgR+/- status were 69.5%/30.5% and 43.5%/56.5% in the other pts. Most of our patients received adequate treatment, in particular therapeutic modalities by stage for locoregional disease were: 77 Stage I patients were treated with surgery (S) alone in 90.6% of cases, 8 women (9.4%) received adjuvant hormone therapy (HT) (Tamoxifen) after local treatment; 13 Stage II pts (18.6%) were treated with S alone, 53 (75.7%) with HT and 4 (5.6%) with adjuvant chemotherapy. Five years survival of stage I-II pts were 84%. Our data on 341 EBC pts suggest that the majority (63.1%) were detected incidentally; delay in referral (> 2 mos) occurs in 58.6% of pts; no women received radiotherapy for locoregional control. Surgical treatment was more aggressive in comparison to younger patient with similar disease treated during the same period in our Institute: Halsted mastectomy were performed in 23.7% of pts, Patey in 48.4% and conservative surgery only in 11.7%. We suggest that screening program should be extended after the age of 60 years and systemic treatment should be evaluated in elderly patients.

**Keywords:** Elderly-Breast-Cancer.

352

# CONSERVATIVE TREATMENT OF BREAST CANCER: IRRADIATION TECHNIQUE FOR WOMEN WITH LARGE BREASTS

**Zierhut D.**, Flentje M., Frank C., Wannenmacher M.

Dept. of Clinical Radiology, University of Heidelberg, Im Neuenheimer Feld 400, D-6900 Heidelberg, FRG

An optimized breast radiation therapy technique for conservative treatment for UICC stages I and II carcinoma of the breast in women with large, pendulous breasts is presented. These patients have partly been considered to be unsuitable for breast conserving radiotherapy due to difficulties with patient positioning and because of poor cosmetic outcome resulting from dose inhomogeneity and large volume irradiation. 6 patients who underwent lumpectomy and axillary node sampling received external beam irradiation of the whole breast using tangential wedged 6 MV photon fields to a total dose of 50 Gy in 25 fractions (plus 10-14 Gy electron boost). A special breast holding mask was shaped with Orfit® for each patient. After CT-scanning with this mask, a 3-D-treatment plan was made and afterwards verified on a simulator.

Plans from the same patient with and without mask were compared. Dose-volume-histograms show that target volume can be irradiated more homogeneously and that lung tissue can be spared by using the positioning device. Day-to-day-variance of patient setup was checked by subscapular overlaying of portal films with the simulation radiograph. The median difference was 0,32 +/- 0,34 cm.

We conclude that this technique provides a clearcut benefit for the patient concerning radiation homogeneity, accuracy and safety and is highly reproducible. Cosmetic outcome up to now is excellent.

354

# IS CONSERVATIVE TREATMENT A SAFE ALTERNATIVE TO MASTECTOMY FOR LOCALLY ADVANCED BREAST CANCER?

G. Calais, S. Chapet, P. Descamps, A. Reynaud-Bougnoix, G. Body, P. Bougnoix.

J. Lancas, O. Le Floch. Centre Hospitalier Universitaire, TOURS, France.

**Purpose:** The traditional treatment for operable breast cancer larger than 3 cm is mastectomy. In order to avoid mutilating surgery, we administered primary chemotherapy to 158 patients with operable breast cancer T2>3cm and T3, N0-N1. Conservative treatment was proposed when tumor was reduced to 3cm or less. The purpose of the study was to evaluate this treatment strategy. **Patients and Methods:** The mean age was 50.4 years. Eighty-two patients were T2>3cm, 76 were T3. Fifty-four were N0 and 104 were N1. Patients were treated with three courses of the NVCF regimen (Mitoxantrone, Vindesine, Cyclophosphamide and 5 Fluorouracil) or the EVCF regimen, in which Mitoxantrone was replaced by Epirubicin every 4 weeks, and then with a radio-surgical combination. **Results:** The overall response rate to induction chemotherapy was 61% with 20% complete tumor regression. Breast-conserving treatment was feasible in 49% (77/158). Other patients were treated with mastectomy. Isolated recurrences occurred in 11 patients, six conservatively treated and five treated with mastectomy. Metastatic relapses were observed in 38 patients (15% in the responders and 39% in the non responders to chemotherapy) (p<0.02). Five-year actuarial survival was 73% and was significantly better for responders to the induction treatment. **Conclusion:** These results suggest that primary chemotherapy and radiosurgical breast conserving treatment is a safe alternative to mastectomy for patients with locally advanced operable breast cancer.

351

# IS IT ACCEPTABLE TO GIVE A DOSES OF 50 GY IN THE CONSERVATIVE BREAST CANCER TREATMENT ?

**Minguell J.**, Garcia F, Miró A, Vázquez G. Servicio Oncología Radioterápica Hospital San Joan y S. Perpetuo Socorro. ALICANTE. SPAIN.

A retrospective study was performed to compare the influence of irradiation doses on whole breast, in local control and disease free survival.

Since 1981, 358 patients with primary breast cancer were treated with conservative surgery when the maximal diameter of tumor was 3 cm. In addition, the whole breast and occasional regional nodes, were irradiated with photons, Co-60, at doses ≤ 50 Gy (69%) and >50 Gy (31%).

T1: 161 (46%), T2: 181 (52%), T3: 7 (2%). Average of age was 52 yr. Premenopause: 42%. 34% had axillary node involvement. Adjuvant chemotherapy (CMF/FAC) 39%. Hormonotherapy 50%.

Our results show local breast failure in 18 patients (5%), regional failure (4%) and distant metastases (9%). Actuarial survival is 89% at 5 yr. and 71% at 10 yr. Disease free survival is 82% and 50% at 5 and 10 yr. According to breast doses received we observed no significant difference in local failure and survival.

**CONCLUSION:** We suggest that irradiation at 50 Gy to the breast is an acceptable treatment with low local failure rate and high disease free survival.

353

# TAMOXIFENE AND HYPOFRACTIONATED RADIO THERAPY FOR BREAST CANCER IN ELDERLY WOMEN

**E. Campana**<sup>1</sup>, J.R. Vilcoq<sup>1</sup>, R.J. Salmon<sup>2</sup>, A. Fourquet<sup>1</sup>.

1: Department of radiotherapy, 2: Department of surgery. Institut Curie. Between January 1988 and January 1992, 40 elderly patients with breast cancer, were treated with tamoxifene, and hypofractionated irradiation. The aim of this protocol was to avoid radical surgery and reduce the number of venues for radiotherapy in old patients. Mean age was 81 years (67-90). TNM distribution was: T1(5pts) T2(20pts) T3(8pts) T4(7pts) N0(35pts) N1(5pts). M0(39pts) M1(1pt). Hormonal treatment consisted of tamoxifene 20 mg/day, irrespective of hormone receptor level. All but 3 pts were locally treated with exclusive radiotherapy. Three pts underwent limited surgery prior to irradiation. Radiation consisted of 5 fractions of 6.5 Gy to the entire breast, 1 fraction /week, to a total of 32.5 Gy, (40/40pts). A boost to the residual tumor (2 fractions of 6.5 Gy) was then delivered (37/40 pts). For N1 patients 5 fractions of 5.5 Gy were delivered to the axilla (5/40 pts). Treatment was very well tolerated without any acute local complication. Mean follow-up was 30 mths (6-60). Three breast recurrences occurred at 18, 18, 24 mths respectively. Two were successfully treated with second line hormonotherapy. One was treated with salvage mastectomy. One axillary recurrence occurred at 18 months and pt was well 19 months after axillary dissection. Two patients died of metastasis at 20 and 23 mths respectively. Actuarial survival at 30 mths was 92%, actuarial disease free survival at 30 mths was 78 %. This protocol, seemed to be well adapted to elderly pts, with high local control rates and low morbidity.

355

# DUCTAL CARCINOMA IN SITU OF THE BREAST: RESULTS OF TREATMENT BY CONSERVATIVE SURGERY AND DEFINITIVE IRRADIATION

**Ray, G.R.**, Marzoni, A., Palo Alto Medical Foundation, Palo Alto, CA; Adelson, J., Hayhurst, E., Kaiser Permanente Medical Group, San Jose, CA, U.S.A.

Sixty-two women with ductal carcinoma in situ (DCIS) were treated by conservative surgery and irradiation, and followed for a median of 67 months (range 34-191 months) following treatment. Two women had bilateral tumors for a total of 64 breasts at risk. All patients underwent gross excision of the tumor followed by radiation to the whole breast and sequential boost irradiation to the primary tumor bed. The median dose to the whole breast and primary tumor site was 5000 cGy and 6940 cGy, respectively. Five patients (9%) failed in the breast for an 8 year actuarial local failure rate of 10%. All 5 patients with local recurrences underwent mastectomy and are alive without evidence of disease at a mean of 42 months post mastectomy. The 8 year actuarial absolute and cause specific survivals were 89% and 100%, respectively. These results suggest that DCIS treated by excision and irradiation achieves acceptable local control and excellent survival and cosmetic results in selected patients.