

($QI > 25\%$) correlates with tumor progesterone receptor levels (above 100 fmol/mg protein). It suggests that women with overweight develop hormone responsive breast carcinoma more frequently than lean women.

PP-4-23 CA 15-3, CEA and TPS for Monitoring Metastatic Breast Cancer Patients — A Multicenter Study

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CA 15-3, CEA and TPS were determined in serum samples of breast cancer patients treated with hormonal and/or chemotherapy. Patients were divided into 4 groups according to UICC criteria: 1. After 3 months PR (SD) and 6 months PR (CR) ($n = 29$); 2. After 3 and 6 months SD ($n = 39$); 3. After 3 months PR (SD) and 6 months PD ($n = 27$) and 4. Anytime PD as the first follow-up assessment ($n = 34$). Initial elevation of CA 15-3 and TPS were of the same order and more often than CEA. TPS decreased ($> 50\%$) more often than CA 15-3 and or CEA (groups 1 + 2). This decrease was also reached for TPS with a significantly shorter median time. 40 patients in groups 1 + 2 (from 4 centers) were used for calculation of the marker increase ($> 25\%$) and 70% reached that level outside the reference range for one of the markers during the first 6 months. Extended clinical follow-up revealed that all these patients developed PD later on. The prognostic sensitivity for PD was 70%, 40% and 30%, respectively for TPS, CA 15-3 and CEA. The median lead-time was 8 months for CA 15-3 and CEA and 10 months for TPS. TPS increased more often than CA 15-3 and/or CEA (groups 3 + 4). There was no significant difference in the median time of this increase.

PP-4-24 Stereotaxic Large-Core Needle Biopsy of Breast Microcalcifications

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We report our first results with stereotaxic large-core needle biopsy (SLCNB) for diagnostic approach of microcalcifications.

90 SLCNB were performed from February 1994 till December 1995. We used a General Electric CGR stereotaxic device (Stereotix) attached to a DMR mammography unit, a biopsy gun (Biopsy Gun, Bard) and 14 gauge disposable biopsy needles (Biopsy Cut, Bard). Biopsies were performed with the patient lying on her side (50 cases) or sitting (40 cases). A mean of 5 cores was obtained per lesion. In 64 cases, at least one core sample contained microcalcifications visible on the radiography of the specimen. Histopathologic result was benign in 46 cases, malignant in 40 cases.

Four failures were noted, due to faintness or technical difficulties. Seven minor complications were encountered. No false negative occurred for SLCNB among the 36 lesions which underwent open surgical excision, but in 13 cases, the invasive nature was not specified by SLCNB which found only ductal carcinoma in situ.

Our first results are comparable to those published in the literature. With a precise technique and a cautious interpretation, SLCNB can bring useful information for the diagnosis and treatment of breast microcalcifications.

PP-4-25 Breast Screening: A 7-Year Experience in the Northeast of France

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Since 1989, during periodic health examinations, the Center of Preventive Medicine in Nancy has proposed a screening mammography to women aged over 50. They were examined with two-view mammography for the first pass, and one-view mammography for the others. Independent double reading by radiologists from Centre Alexis Vautrin was performed.

During a 7-year period, 10,949 screening examinations were performed, in 62% of the women aged over 50.

The recall rate for further examination was 6% (653 cases). Biopsy was recommended in 138 cases. Fifty-seven biopsies evidenced carcinoma. The number of breast cancers detected was 5.2 per 1,000 screenings.

The predictive positive value is 8.7%.

The authors have studied the annual trend of the results. This work has led them to develop a multidisciplinary experience that will allow to begin now a mass screening of breast cancer in the "Meurthe et Moselle" Department.

PP-4-26 Second Cancers after Breast Conservative Treatment (BCT)

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Material: From January 1980 to December 1990, 991 women with stage I-II BC (seven with bilateral BC) underwent conservative surgery and irradiation. The median age was 54 years. According to TNM classification we found 198 T0, 399 T1, 342 T2, 59 T3.

Treatment: Quadrantectomy, lumpectomy and axillary dissection were performed respectively in 764, 234 and 925 cases. All received breast irradiation by cobalt photons at 46–54 Gy, with a scar boost by electrons at 8–12 Gy. Supraclavicular and internal mammary nodes were treated in case of central/inner tumor or axillary involvement. 308 women received chemotherapy (CT), and 679 hormonal therapy (HT): 25 by radiotherapeutic castration (RC), 577 by Tamoxifen (T) and 77 by RC + T.

Results: With a median follow-up of 7 years, the overall and specific 10-years survival rates are 82% and 87%; 60 women developed local recurrences and 102 metastases. 19 women developed a contralateral BC (2%). Any had axillary involvement. Two died of metastases. We note respectively 1.3% and 2.5% of contralateral BC in women with and without CT, and 1.9% and 2.5% in women with and without HT. 41 women (4%) developed 43 second cancers: 7 endometrial carcinomas, all in group with HT (1.2%), 6 ovarian tumors, 11 digestive tumors (6 colorectal), 3 kidney adenocarcinoma, 3 melanoma, 2 vulvar ca, 2 parotid tumors, 2 NHL, one breast angiosarcoma, 2 A.M.L., 2 lung ca., one cervical ca., and one Waldenström disease.

Conclusion: Contralateral BC incidence is few influenced by adjuvant therapy. These BC have favourable prognosis. HT clearly increase the risk of endometrial carcinoma.

PP-4-27 Use of Prevention Modalities for Breast Cancer: Survey on 2889 Self-Administered Questionnaires

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Purpose: To assess the knowledge and real use of prevention modalities for breast cancer, such as mammography and self breast examination in a unselected population.

Patients and method: We distributed an self compilative questionnaire to people coming in several health units of different Italian regions.

We collected 2889 questionnaires. Of the women filling the questionnaire, 41% had less than 40 years, 41% were housework and 24% had a primary school degree.

Results: Ninety percent and 92% of the sample knew the aims of self-breast examination and mammography respectively. However only 80% was able to perform self-breast examination and only 49% performed it regularly. Of the women performing self-breast examination, only 22% performed it monthly while 55% did occasionally. Assessing the women who really carried out mammography, 52% of the sample did not undergo mammography in the last 5 years, 34% perform 1–2 mammographies and 11% more than 3 examinations.

Conclusion: The knowledge of prevention modalities for breast cancer in this population was high, but few women really carried out these techniques.

PP-4-28 Randomised Controlled Trial Comparing the Effectiveness of Rapid Diagnosis and Routine Outpatient Clinics

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Background: Women attending 'rapid diagnosis' or 'one stop' breast clinics are offered investigations (triple assessment) and definitive diagnosis in one visit. It is anticipated that these clinics are more acceptable and reduce costs. This study aims to evaluate the effectiveness and efficiency of this management policy.

Setting: Symptomatic breast clinics at South Manchester University Hospital Trust, Manchester, UK

Study Population: Women over 35 years of age with a breast lump.

Unit of Randomisation: Individual women.

Intervention: Eligible women are randomly allocated to either an intervention group who are invited to attend the rapid diagnosis clinic or to a control group who are invited to the routine outpatient clinic.

Outcome Measures: (1) *Psychological morbidity* — at baseline, 24 hours, 3 weeks and 3 months post attendance using validated scales (2) *Clinical morbidity* — false negative rate and benign to malignant ratio (3) *Cost* — average and marginal cost per women attending.

Findings: 321 women have been recruited so far. Preliminary results from the comparison of psychological and clinical morbidity will be presented.

PP-4-29 The Role of Digital Processing Mammography in Diagnosis of Breast Cancer

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Methods of Imaging Processing Systems are promising a lot in maximizing diagnostic sensitivity of mammography. In order to determine the role of digital processing mammography in diagnosis of breast cancer, we studied 50 women with normal mammography and another 50 with breast cancer at Radiation Oncology Department of Medical School and Clinical Oncology Dept. of Nursing School of T.E.I.. Digitalization of mammography has been done using a CCD camera (1024 × 1024 pixels) and the "Image-Pro Plus" software in an IBM-compatible Personal Computer (AT-386). In these cases sensitivity of mammography before digitalization was 81% and specificity 70% and after measurements of perimeter, area, counter and density of breast lesions and clusters of microcalcifications, sensitivity was 88% and specificity 76%. According to these study, the role of digital processing mammography was proved to be clinically valuable in diagnosis of breast cancer, because it improves the sensitivity of mammography ($P < 0.05$), especially in cases with multifocal disease, the pseudocolor menu maximizes the friendliness of the method and it offers the database and telecommunication facilities.

PP-4-30 Breast Cancer: A Retrospective Study of Two Ethnic Groups in the Center of Israel

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Analysis of a 21 years retrospective study of all new breast cancer patients at the "Kaplan" Medical Center was performed. In this region there are two homogenous major ethnic groups of women — of Ashkenazi or Sephardi origin (51.1% vs. 48.9%, respectively), which were studied according to their age, stage of disease and ethnicity. We found that breast cancer incidence in the Ashkenazi group was 2.4 folds higher than in Sephardi group ($P < 0.04$). The highest incidence was found in stage II in post-menopausal women in both groups. No significant differences were found in pre-menopausal women, although the occurrence of breast cancer was more frequent in young Sephardi women. Interestingly, the number of post-menopausal Ashkenazi women, in whom the disease was at stages I–III was significantly higher, 2–3.5 folds higher than in Sephardi women. The possible influence of genetic, economic and social differences between the two groups will be discussed.

PP-4-31 The Improvement of Aspiration Biopsy Cytology by Ultrasound Guided High Power Aspiration

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The efficacy of Ultrasonically guided fine needle aspiration biopsy cytology with high power aspiration machine (US-ABC) was compared with that of the conventional ABC using usual 20 ml cylind. US-ABC system made it possible to puncture under imaging and aspirate many cells. From 1992 to 1994, 281 breast tumors were evaluated with cytological and pathological findings, 78 tumors by US-ABC and 203 tumors by conventional ABC. The sensitivity of US-ABC was 93%, the specificity was 62% and the predictive value of a positive diagnosis was 89%. Those of conventional ABC was 78%, 62% and 81%, respectively. A total of 208 cases of breast cancer were evaluated by the tumor size. The US-ABC resulted in positive rate of 80% for tumor less than 1.0 cm, 93% for 1.1–2.0 cm and 100% for larger than 2.1 cm, respectively, and the conventional ABC resulted in 54%, 77% and 86% respectively. These results indicated US-ABC system was a useful

method to improve the diagnosis of breast cancer, especially for the tumors less than 1.0 cm.

PP-4-32 Breast Cancer in Albania: Incidence and Preliminary Results of Screening

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Albanian population, as known, amount at 3.5 millions and has been isolated from the rest of European countries for almost 40 years, without a real industrial development. Incidence of breast cancer in Albania has been studied by the University of Tirana in period 1984–86 on a series of 590 cases with an annual average of 173 cases, 169 females and 4 males. Within Albanian women, breast cancer represents 19% of all tumors, 24% excluding skin tumors. Albania's data, according to the standardization over the world population, reflect a state of low incidence (14/105). We must point that 70% of female population in Albania is in the range of 0–34 yrs. The annual incidence of the urban areas is 3.3 times higher than in rural areas (21.6 × 105 vs 6.4 × 105). These data coming from retrospective studies based on clinical observations because of until September 1995 there was no senologic centre in Albania. In this period with a grant of E.U. we started a project regarding the study of incidence of breast cancer in Albania. The study intends examining a sample of 6000 Albanian women which about corresponds to 10% of Tirana's population.

Women underwent a mammography and clinical examination. It's obviously remarkable that since mammography has been introduced in this country for the first time none of the enrolled had ever undergone before a mammographical examination, therefore this population must be considered as an unexplored population. Mammography is performed in two views: Medio-lateral and cranio-caudal. Processing and interpretation are performed on site. A double reading of the mammograms is undertaken at distance in Italy. After the X ray examination doubtful cases underwent clinical examination, ultrasound and F.N.A.B. if necessary. Until now 4000 mammographic examinations have been performed and 40 cases of breast cancer found. Final results after one year will be available in the next September at the end of the study.

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PP-4-33 Surveillance for Contralateral Breast Cancer: The Mode of Diagnosis and Subsequent Stage

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Background: Women treated for breast cancer are at increased risk for a 2nd primary. This risk remains equal in time. For this reason it is advised to follow women after treatment with curative intent for a primary tumour for live by at least annual physical examination and mammography.

Aim: To determine method (breast self examination – BSE, physical examination by physician – PE – or annual mammography – MG) and stage of contralateral breast cancer (CLBC) in women at routine follow up.

Method: Retrospective analysis of 161 pts with CLBC diagnosed between 1976–1994. In all, in this period 344 pts with CLBC were seen at the NKI/AvL, but 183 pts with synchronous or CLBC with in one year, with distant metastasis, ipsilateral local or regional relapse, LobCIS, or who were — partially — followed elsewhere were excluded.

Results: From the 161 CLBC, first suspicion was found by routine MG in 37%, by routine PE by the attending physician in 41%, and 22% by the pt herself. Disease stage was in 53% more favorable than the first cancer, in 21% equal to and in 23% tumor stage was less favorable. Data on pathological tumor stages and outcome will be presented.

Conclusion: Intensive surveillance by BSE, regular PE and annual MG results in 2/3 of the CLBC diagnosed on clinical grounds and only 1/3 by routine MG. Only half of CLBC is in a more favorable stage compared to the first breast cancer.

PP-4-34 Axillary Lymph Nodes in Breast Cancer: Assessment with 'Power' Doppler Ultrasound

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Previous studies have indicated that ultrasound colour doppler imaging