

postmenopausal women's breast cancer risk for a period of one year, based on the absolute risk and the excess risk from identified risk factors.

Methods: We tested this method in 988 women who underwent mammography in a private clinic. After calculating the individual risk for each of the patients, we divided them in quartiles. We also divided the population in arbitrary risk levels: low, intermediate, and high. Then, we compared the number of cases expected with the number of cases diagnosed.

Results: The breast cancer incidence was higher in the highest quartile of risk (7.6%) as compared to the lowest (0.008%) ($P = 0.0003$). The relative risk of presenting the disease was 9.38 in the highest quartile of risk compared to the lowest ($P < 0.001$), and was 7.63 in the high risk level compared to the low risk ($P < 0.001$). There was a significant correlation in the expected/observed ratio between subgroups ($r = 0.96$; $P < 0.001$).

Conclusion: This new method might be useful in the evaluation of individual breast cancer risk in postmenopausal women.

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POSTER

First-degree family history and breast cancer

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Purpose: Women whose mothers or sisters had breast cancer are 3–4 times more likely to develop the disease. However, only 10% of these patients have a positive family history. We evaluated the association between breast cancer first-degree family history and the risk to develop the disease.

Methods: Incident cases case-control study. We paired 74 consecutive incident breast cancer cases (histologically confirmed) and 222 controls for risk factors others than first-degree family history, selected among women who underwent mammography in a private clinic between January 1994 and July 1997. Before the mammography, all patients were interviewed about menarche, menopause, age at first pregnancy, parity, oral contraceptives or hormonal replacement therapy, and first and second-degree family history of breast cancer.

Results: There was no significant difference between cases and controls regarding all risk factors evaluated, besides first-degree family history. Patients with breast cancer, compared to controls, were more likely to have first-degree relatives with the disease (OR = 4.36; 95% CI, 1.30–14.94; $P = 0.008$).

Conclusion: Breast cancer is significantly associated with first-degree family history of the disease.

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POSTER

Second-degree family history and breast cancer

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Purpose: to evaluate the association between breast cancer second-degree family history and the risk to develop the disease.

Methods: Incident cases case-control study. Sixty six consecutive incident breast cancer cases and 193 controls were selected among women who attended mammography in a private clinic between January 1994 and July 1997. Cases and controls were paired for age, age at menarche, at first live birth, at menopause, parity, oral contraceptives or hormonal replacement therapy use.

Results: There was no significant difference between cases and controls regarding all risk factors evaluated, besides second-degree family history. Patients with breast cancer were more likely to have second-degree relatives with breast cancer when compared to controls (OR = 2.77; 95% CI, 1.03–7.38; $P = 0.039$).

Conclusion: Breast cancer is significantly associated with second-degree family history of the disease.

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POSTER

A rigorous follow-up study is necessary to precisely estimate the effect of adjuvant therapy in early breast cancer

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Purpose: A follow-up study of randomized controlled trials for adjuvant therapy in breast cancer has become more and more hard to perform,

although rigorous follow-up is necessary for lessening the type II errors in the studies.

Methods: In a randomized clinical trial comparing endocrine therapy (tamoxifen (TAM) ± oophorectomy), chemotherapy (CHEM; mitomycin C + oral cyclophosphamide), and chemoendocrine therapy (CHEM + TAM), for early breast cancer (UICC, I, II, IIIA) stratified by ER and menopausal status. In 1579 patients, 3 follow-up methods were evaluated for outcomes of the 3 treatments in terms of recurrence-free (RFS) and overall survival (OS) by means of the logrank test in the Kaplan-Meier curves and the Cox proportional hazard model: 1) X: periodical informations in the outpatient – clinic after operation, 2) Y: telephone and letter inquiry in addition to X, 3) Z: in addition to Y, inquiry of family register (Koseki), of resident cards, reference to other hospitals.

Results: 305 recurrences and 331 deaths were found by the method of Z. A 83% and 93% of deaths compared with Z were noted by X and Y, respectively. The analysis with X method did not show a significant difference in the adjuvant treatments. The Cox model showed that a significant difference in OS was noted by means of Z method alone.

Conclusions: These results suggest that a rigorous follow-up is necessary to avoid the type II errors in the breast cancer adjuvant therapy study.

Wednesday, 30 September 1998

16:00-18:00

PARALLEL SESSION

Reconstructive surgery

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INVITED

Breast reconstruction by TRAM flap: Technical options

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The transverse rectus abdominis musculocutaneous (TRAM) flap has evolved as a popular source for routine postmastectomy breast reconstruction using autogenous tissue. As originally described, the TRAM flap consisted of the rectus abdominis muscle and lower abdominal skin perfused by the deep superior epigastric vessel via the periumbilical myocutaneous perforators. The principles that have been developed along with the evolution and modification of this flap have promoted a more reliable and augmented blood supply to the flap, with an attempt to maintain abdominal-wall integrity. Indeed, there are now a variety of options available to the surgeon that may suit most clinical situations; for example, preserving a lateral strip of the rectus abdominis (as in the "selective" technique) reduces the risks of significantly hampering the postoperative integrity of the abdominal wall.

Although using the superior-based single-pedicle TRAM flap is the preferred method, potential problems can occur with the poorly vascularized contralateral portion of the flap (zone IV), including fat necrosis and skin loss. Occasionally, the whole random portion of the flap may be compromised, thus to require excision of a significant segment of poorly vascularized tissue. Efforts to avoid these complications have produced trends toward the preferred utilization, in selected patients, of the bipedicle TRAM flap. Criteria for using both pedicles when transposing a TRAM flap include large soft-tissue requirements, prior abdominal surgery compromising the blood supply to portions of the anterior abdominal wall, and selected patients with suspected microvascular pathology, such as smokers. The disadvantages include a slightly longer operative time and increased risks of donor-site morbidity.

Anatomical studies have demonstrated that the dominant blood supply of the lower abdominal skin comes actually from the inferior system rather than the superior system, so in theory an improvement in blood supply could be realized if the flap were based on the deep inferior epigastric vessels. The free TRAM flap exploits this principle and has evolved as a popular and reliable choice in breast reconstruction. The "supercharged" TRAM flap has been introduced as a method where the single superiority based pedicle can be augmented with additional flow by means of the microvascular anastomosis of vessels on the opposite random portion of the flap to recipient vessels in the axillae. In this regard, supercharging by means of the superficial inferior epigastric artery or the deep inferior epigastric artery in an inferiorly based rectus muscle on the opposite side has been described. The preferred recipient vessels for the free TRAM flap as well as the supercharged flap include the axillary branches and the subscapular artery and its division; the internal mammary system has