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McGrath Breast Care Nurse Monthly Newsletter

November 2011

Upcoming Conferences /Events

7th National Cancer Research Institute Conference

November 6-9, 2011

Liverpool, UK

<http://www.ncri.org.uk/ncriconference/>

16th Reach to Recovery International Breast Cancer Support Conference

November 9-12, 2011

Taipei, Taiwan

<http://www.reachtorecovery2011.org/index.asp>

COSA 38th Annual Scientific Meeting

November 15-17, 2011

Perth Convention Centre, WA

www.cosa2011.org

San Antonio Breast Cancer Symposium

December 6-10, 2011

San Antonio, Texas

<http://www.sabcs.org/>

Cancer Care Coordination Conference

March 6-7, 2012

Novotel St Kilda, Melbourne

<http://www.cosaccc2012.org/>

Cancer Nurses Society of Australia 15th Winter Congress 2012

July 26-28, 2012

Hotel Grand Chancellor, Hobart, Tasmania

http://econnect.dconferences.net.au/pdf/1_Call_for_abstracts_CNSA_2012_flyer.pdf

Lymphoedema Training in 2011

Brisbane

November 12-18, 2011

For further information contact Hildegard_Reul-Hirsch@health.qld.gov.au

New Resources

Westmead Breast Cancer Institute 2011 Public Forum – Repeated by popular demand

The 2011 Public Forum *Moving Forward: Surviving Breast Cancer* is being repeated on Tuesday, November 22nd at 8pm (AEDT) via satellite broadcast and online video. The program hosted by Professor Boyages explores

- * The need for supportive care once treatment finishes
- * Living with uncertainty and how to manage it, without letting it manage you
- * The role of the GP in the multidisciplinary team for follow up care
- * The role of vitamin D in breast cancer and health
- * The increasing evidence on exercise and its role in preventing recurrence of breast cancer

Presenters:

Chair: Professor John Boyages, Director, Westmead Breast Cancer Institute NSW

Ms Jude Peterkin, McGrath Breast Care Nurse, Wodonga VIC

Ms Kellie Bilinski, Senior Clinical Dietitian / Research Program Coordinator,
Westmead Breast Cancer Institute NSW

Professor Robert Newton, Exercise and Sport Science, Edith Cowan University WA

Dr Jenny May, General Practitioner, Tamworth NSW

Dr Jemma Gilchrist, Senior Clinical Psychologist, Westmead Hospital NSW

View the online video at www.rhef.com.au

Satellite Broadcast Information

Tuesday 22nd November Channel 23

ACT/NSW/VIC/TAS - 8.00pm

SA - 7.30pm

QLD - 7.00pm

NT - 6.30pm

WA - 5.00pm

(repeated in WA on Channel 23 at 8.00 pm)

Repeated Friday 25th November Channel 23

ACT/NSW/VIC/TAS - 12.30pm

SA - 12.00 noon

QLD - 11.30am

NT - 11.00am

WA - 9.30am

Cancer Nurses Society of Australia – Call for Abstracts

15th Winter Congress *Promoting Partnerships for Optimal Patient Outcomes*

Hotel Grand Chancellor, Hobart, Tasmania

26 – 28 July 2012

The Cancer Nurses Society of Australia invites you to participate in the 15th Winter Congress by submitting an abstract for an oral or poster presentation.

Key themes for the meeting include:

- ✓ Treatment decision making and partnership
- ✓ Advances in side effect and symptom management
- ✓ Workforce Innovation and models of care

The Congress organisers welcome abstracts that relate to a broad range of cancer nursing topics across these themes. Abstracts are to be submitted online at

<http://www.dccconferences.com.au/cnsa2012> before 14th March 2012

Latest Research and news

Compiled from sources including Cancer Council NSW and Victoria, Medscape, ScienceDaily, NBOCC and Cancer Learning and other sources.

Chemotherapy Safe to Give During Pregnancy (Stockholm, Sweden)

A cancer diagnosis can be devastating, but is even more traumatic when the patient is pregnant. A new study offers some reassurance to pregnant patients and their physicians. The results of the small study, presented during a presidential session here at the 2011 European Multidisciplinary Cancer Congress, show that children who were exposed to chemotherapy in utero did not appear to suffer any detrimental effects in terms of general health and neurologic and cardiac functioning.

The beneficial effects of trastuzumab are long-lasting in patients with HER2-positive, early-stage breast cancer — and trastuzumab's risk-benefit ratio unequivocally favours the use of this agent in patients with HER2-positive tumours. Whether shorter or lengthier administration of trastuzumab in the adjuvant setting will confer similar benefits is being addressed in other clinical trials. Perez E.A. et al; Published in *Journal Watch Oncology and Hematology* September 27, 2011

Red Wine Ingredient Resveratrol Stops Breast Cancer Growth, Study Suggests (*ScienceDaily*)

A new research report appearing in the October 2011 issue of *The FASEB Journal* shows that resveratrol, the "healthy" ingredient in red wine, stops breast cancer cells from growing by blocking the growth effects of oestrogen. This discovery, made by a team of American and Italian scientists, suggests for the first time that resveratrol is able to counteract the malignant progression since it inhibits the proliferation of hormone resistant breast cancer cells. This has important implications for the treatment of women with breast cancer whose tumours eventually develop resistance to hormonal therapy. *The FASEB Journal, 2011; 25 (10): 3695*

Tamoxifen Use Tied to Diabetes Risk in Breast Cancer Survivors (HealthDay News)

Current tamoxifen therapy is associated with a significantly increased incidence of diabetes in older breast cancer survivors, Lorraine L. Lipscombe, M.D., from the Women's College Hospital in Toronto, and colleagues investigated whether tamoxifen treatment was associated with an increased risk of diabetes in 14,360 survivors of early-stage breast cancer who were older than 65 years. A study published online Sept. 20 in *Cancer*.

Breast Cancer Deaths Decline in U.S. at Slower Pace for Low-Income Women

The highest breast cancer death rates have shifted from affluent women to the poor, as the overall decline in mortality has been slower among those with less access to screening and treatment, according to a report. About half of poor women aged 40 and older had a mammogram within the past two years, compared with 73% of women who were on a more stable financial footing, according to a report by the American Cancer Society.

Male breast cancer patients diagnosed later

Male breast cancer patients have poorer survival than their female counterparts, but the difference is largely due to a later stage of presentation among men, research shows. The findings, published in the *Journal of Clinical Oncology* this week, suggested "much improvement"

in male breast cancer outcomes could be achieved by improving earlier detection and developing gender-specific treatment guidelines, the authors wrote. Males with breast cancer had a 27% increased risk of death within five years of diagnosis compared with women with the disease, the international study of almost 500,000 female and over 2,500 male breast cancer patients found. However this was partly explained by men being diagnosed at a mean age of 70, compared with just 62 for women. Furthermore, the proportion of distant spread of disease stage was two-fold in men compared with women, with the researchers saying this was most likely due to mammography screening among women. After adjusting for age, year of diagnosis, stage and treatment, males had significantly better relative survival than females, suggesting male gender was a favourable prognostic factor, the authors wrote. However males were disadvantaged by a lack of evidence-based treatment guidelines, they wrote. Most doctors based their treatment strategy on guidelines for female breast cancer, they noted, even though systemic treatment was "not as straightforward in men". For instance, anti-oestrogen treatments like tamoxifen were not well tolerated by men, resulting in lower compliance. *Journal of Clinical Oncology* 2011; doi: 10.1200/JCO.2011.36.8902

Annual Mammograms May Have More False-Positives

Getting screening mammograms every two years instead of annually reduces the chance of a false alarm, a new study shows. The frequency of screening mammograms -- and the appropriate age to begin them -- has been debated since the U.S. Preventive Services Task Force in 2009 recommended that women routinely get screening mammograms every other year starting at age 50. The new studies appear in the *Annals of Internal Medicine*.

Combination Therapy May Help Some Patients with Advanced Breast Cancer

The 2011 European Multidisciplinary Cancer Congress meets to showcase the latest European basic, translational, and clinical studies. A combination of two available cancer drugs could offer a new treatment option for postmenopausal women whose advanced breast cancer has stopped responding to hormonal therapy, researchers said last week at a scientific meeting in Stockholm, Sweden. The experimental treatment is a combination of everolimus (Afinitor) and exemestane. In a phase III clinical trial, women who received the combination lived for a median of 11 months without the disease progressing, compared with about 4 months for women who received exemestane alone. "The benefit is quite remarkable," said lead investigator Dr. José Baselga of the Massachusetts General Hospital, who presented the findings at the European Multidisciplinary Cancer Congress. Many patients in the trial had already received multiple therapies, he noted.

Triple-Negative Breast Cancer Characteristics Identified (HealthDay News)

There are unique characteristics associated with triple-negative breast cancer (TNBC) in both *BRCA1* mutation carriers and non-carriers. Eunjung Lee, Ph.D., from the University of Southern California in Los Angeles, and colleagues investigated the distinguishing features of TNBC in women after accounting for *BRCA1* mutation status. Sequencing data and information on tumour receptor status were collected for 1,167 women. The study was published online Oct. 17 in the *Journal of Clinical Oncology*.

DES Daughters Have Increased Risk of Cancer

According to a study published in the *New England Journal of Medicine*, women exposed to diethylstilbestrol (DES) before birth have an increased risk of vaginal cancer, cervical precancers, and breast cancer. These women also have an increased risk for a wide range of reproductive problems. Diethylstilbestrol is a synthetic oestrogen that was prescribed to pregnant women

between 1940 and 1971. The drug was used to reduce the risk of miscarriages, though later studies indicated that it most likely had no effect on miscarriage risk. *New England Journal of Medicine*. 2011;365:1304-14.

Herceptin Plus Non-Anthracycline Chemotherapy Effective for Breast Cancer

Among women with early, HER2-positive breast cancer, the addition of Herceptin® (trastuzumab) to adjuvant chemotherapy reduces the risk of cancer recurrence and improves survival. Herceptin provides a benefit in combination with either anthracycline- or non-anthracycline-based chemotherapy regimens, but non-anthracycline regimens tend to be less toxic. These results were published in the *New England Journal of Medicine*. 2011;365:1273-83.

Breast Cancer Recurrence Halved by Radiation (HealthDay News)

The use of radiotherapy appears to dramatically reduce the risk of breast cancer recurrence, and somewhat reduce the risk of death from breast cancer, in women who receive radiation after breast-conserving surgery. Members of the Early Breast Cancer Trialists' Collaborative Group analyzed data on 10,801 women who participated in 17 randomized trials of radiotherapy versus no radiotherapy following breast-conserving surgical treatment of breast cancer; 8,337 of the women had node-negative or node-positive disease. A meta-analysis was published online Oct. 20 in *The Lancet*.

More breast cancer diagnosed in women with diabetes (Reuters Health)

Women with recently diagnosed diabetes may be more likely to also get a breast cancer diagnosis than those without diabetes, suggests a new study from Canada.

It's not the first time diabetes has been linked to new cases of breast or other cancers. But the findings also hint that at least part of the reason why doctors find more breast cancer in diabetics is because they're looking harder -- and not necessarily because diabetes itself raises a woman's cancer risk. *Diabetes Care*, online October 4, 2011.

Letrozole Tops Tamoxifen for Early Breast Cancer

Women with hormone-sensitive early breast cancer had significant improvement in survival odds when treated with letrozole (Femara) versus tamoxifen or the combination, according to long-term follow-up from a randomized trial. After a median follow-up of 8.1 years, patients treated with letrozole had a 15% to 20% improvement in overall survival, disease-free survival, and distant metastasis-free survival compared with tamoxifen. Women who received the two drugs in sequence had no further improvement beyond what was observed with letrozole alone, investigators reported online in *The Lancet Oncology*.

Multiple Hormones Influence Breast Cancer Risk (HealthDay News)

High levels of sex and growth hormones are known to increase the risk of breast cancer, and it appears that other hormones circulating at high levels may also have a profound influence on the likelihood that a woman will develop postmenopausal breast cancer. Shelley S. Tworoger, Ph.D., of Brigham and Women's Hospital and Harvard Medical School in Boston, and colleagues analyzed hormone levels in blood samples collected from 265 women with breast cancer and 541 controls to evaluate the influence of multiple hormones on breast cancer risk; the blood samples were collected years before information about their breast cancer status was known. The research was published online Oct. 21 in *Breast Cancer Research*.

CLIP-170 Mediates Paclitaxel Sensitivity in Breast Cancer (HealthDay News)

CLIP-170 regulates paclitaxel sensitivity in breast cancer cells by mediating the effects of paclitaxel on microtubule assembly, mitosis, and apoptosis. *Xiaodong Sun*, from the Nankai University in Tianjin, China, and colleagues investigated whether the microtubule binding protein CLIP-170 regulated sensitivity of the anti-microtubule drug paclitaxel in tumour samples from 63 breast cancer patients who were treated with sequential weekly paclitaxel followed by 5-fluorouracil, doxorubicin, and cyclophosphamide. The study was published online Oct. 12 in *The Journal of Pathology*.

Breast Reconstruction Ups Psychosocial, Sexual Health (HealthDay News)

Women undergoing autologous tissue breast reconstruction experience significant gains in breast satisfaction, and psychological and sexual well-being as early as three weeks post surgery, according to a study published online Oct. 24 in *Cancer*.

Mammograms don't save as many lives as women think (Reuters)

Many women who have survived breast cancer often say it was a mammogram that "saved their life," a powerful testimonial that can encourage other women to get regular breast cancer screening tests. But what are the chances that the test actually saved a woman's life? Not that great, according to a new analysis published in the *Archives of Internal Medicine on Monday*.

Spider venom breast cancer hope *Herald Sun*

Venom from funnel-web spiders and tarantulas could be used to kill breast cancer cells. An Australian trial will test the arachnid's ability to combat cancerous cells. The research comes as Australians mark Pink Ribbon Day, which raises money for breast cancer prevention programs, support services and research. University of Queensland's Institute for Molecular Bioscience hopes the complex mix of molecules in the venom could offer a natural solution to breast cancer treatment.

Capecitabine First-Line Option in Advanced Breast Cancer Therapy (HealthDay News)

Capecitabine is a good first-line treatment alternative to cyclophosphamide, methotrexate, and fluorouracil (CMF) for some women with advanced breast cancer. Martin R. Stockler, M.B.B.S., from the University of Sydney in Australia, and colleagues investigated whether treatment with oral capecitabine was preferable to CMF as first-line chemotherapy for 323 women with advanced breast cancer who were unsuited for more intensive chemotherapy. The study was published online Oct. 24 in the *Journal of Clinical Oncology*

American Society of Clinical Oncology Endorsement of the Cancer Care Ontario Practice Guideline on Adjuvant Ovarian Ablation in the Treatment of Premenopausal Women With Early-Stage Invasive Breast Cancer Jennifer J. Griggs, et al July 2011

Abstract Purpose The American Society of Clinical Oncology (ASCO) has policies and procedures for endorsing practice guidelines that have been developed by other professional organizations.

Methods The Cancer Care Ontario (CCO) Guideline on Adjuvant Ovarian Ablation (OA) in the Treatment of Premenopausal Women With Early-Stage Invasive Breast Cancer was reviewed for developmental rigor by methodologists. An ad hoc review panel of experts reviewed the content.

Results The ASCO ad hoc OA guideline review panel concurred that the recommendations are clear, thorough, based on the most relevant scientific evidence in this content area, and present options that will be acceptable to patients. According to the CCO guideline: one, OA should not

be routinely added to systemic therapy with chemotherapy, tamoxifen, or the combination of tamoxifen and chemotherapy; two, OA alone is not recommended as an alternative to any other form of systemic therapy, except in the specific case of patients who are candidates for other forms of systemic therapy but who, for some reason, will not receive any other systemic therapy (eg, patients who cannot tolerate other forms of systemic therapy or patients who choose no other form of systemic therapy); and three, when chemical suppression using luteinizing hormone–releasing hormone agonists is the chosen method of OA, in the opinion of the Breast Cancer Disease Site Group, monthly injection is the recommended mode of administration. The mode of administration in nearly all of the available trials has been monthly administration.

Conclusion The ASCO review panel agrees with the recommendations as stated in the CCO guideline, with the qualification that ongoing research studies may alter the recommendations of the panel.

Aspirin as a cancer therapy?

The authors state that randomised studies with aspirin primarily designed to prevent cardiovascular disease have demonstrated a reduction in cancer deaths with long-term follow-up. Concerns about toxicity, particularly serious haemorrhage, have limited the use of aspirin as a cancer prevention agent, but recent epidemiological evidence demonstrating regular aspirin use after a diagnosis of cancer improves outcomes suggests that it may have a role in the adjuvant setting where the risk: benefit ratio will be different. R E Langley¹ et al: *British Journal of Cancer* (2011) 105, 1107–1113. doi:10.1038/bjc.2011.289 www.bjcancer.com

Cardiac tests under-used in metastatic trastuzumab patients

Cardiac function tests are being under-used in Australian women with metastatic breast cancer receiving trastuzumab (Herceptin), research suggests, despite a rise in testing rates over the last decade. The introduction in 2006 of mandatory cardiac assessment for early stage breast cancer patients receiving the drug through the PBS had influenced clinical practice in the metastatic group – where testing is recommended but not required under the Herceptin Program, researchers found. Writing in the *Internal Medicine Journal*, the authors, who included Professor Robyn Ward, a member of the Pharmaceutical Benefits Advisory Committee, said the findings suggested requirements placed on prescribing could be a powerful tool in changing clinical practice

Annual screening strategies in BRCA1 and BRCA2 gene mutation carriers. A comparative effectiveness analysis

Although breast cancer screening with mammography and magnetic resonance imaging (MRI) is recommended for breast cancer-susceptibility gene (BRCA) mutation carriers, there is no current consensus on the optimal screening regimen. The authors concluded that annual MRI at age 25 years/delayed alternating DM at age 30 years is probably the most effective screening strategy in BRCA mutation carriers. Screening benefits, associated risks, and personal acceptance of false-positive results should be considered in choosing the optimal screening strategy for individual women. Kathryn P. Lowry et al

Subcutaneous Herceptin Does Well in Roche Study (Reuters)

Treating cancer patients with Roche's Herceptin (trastuzumab) via subcutaneous injections worked just as well as giving the drug intravenously in a phase III trial. Giving patients a shot under the skin takes only about 5 minutes, whereas the standard intravenous infusion takes about 30 minutes, Roche said on Tuesday, potentially cutting the time patients have to spend in hospital.

This formulation could also reduce pharmacy times as no medicine preparation time is needed, Roche said. The phase III open-label HannaH trial involved 596 women with HER2-positive early breast cancer, the Swiss drug maker said. The trial compared pharmacokinetics, efficacy (pathologic complete response) and safety of Herceptin SC to that of Herceptin IV.

No new safety signals were observed; the most common side effects were infections and abnormal blood counts, similar to other trials with chemotherapy and Herceptin IV, according to the company. "Herceptin SC uses Enhance(tm) Technology, developed by Halozyme(R) which enables the injection of large volumes of a medication under the skin (subcutaneous) and enhances pharmacokinetics. It works by reversibly breaking down a gel-like substance (hyaluronan) that forms a barrier in the tissues between cells under the skin," according to a press release.

Surgical advances improve outlook of cerebral metastases

Advances in neurosurgery and the advent of stereotactic radiosurgery have markedly expanded the effective treatment options for cancer patients with cerebral metastases, Australian experts claim. Writing in the *Journal of Clinical Neuroscience*, Dr Timothy Siu, from the Australian School of Advanced Medicine at Macquarie University, and colleagues said an aggressive approach to intracranial tumour control was increasingly regarded as standard practice.

Oncotype DX Assay for HER2 Status Has High False-Negative Rate (Reuters Health)

The Oncotype DX test (Genomic Health Inc) for HER2 gene amplification in breast cancers has an "unacceptable" false-negative rate, according to a report in the *Journal of Clinical Oncology* online October 11. But the Oncotype DX is "increasingly used to help make chemotherapy decisions for patients diagnosed with estrogen-receptor (ER)-positive breast cancer," according to Dr. Rohit Bhargava at Magee-Womens Hospital of the University of Pittsburgh and colleagues.

The U.S. Food and Drug Administration has approved five assays for assessing HER2 status: two use immunohistochemistry and three use fluorescent in situ hybridization (FISH). The Oncotype Dx test, in contrast, uses a reverse transcription polymerase chain reaction (RT-PCR). Using tumour samples from 843 patients from three centres, the research team compared results reported by Oncotype DX to results of immunohistochemistry (IHC) and FISH. The Oncotype test gave 816 negative results, but 14 of these were positive and 23 were equivocal on IHC/FISH testing, the authors report. The PCR-based test also classified 17 results as equivocal, of which 12 were positive on IHC/FISH. In fact, of 36 cases identified as positive by IHC/FISH, the GHI test found only 10. It reported 12 as equivocal and 14 as negative. *Journal of Clinical Oncology* 2011.

More Women With Breast Cancer Get Nipple-Sparing Surgery

More women facing mastectomies are opting for surgeries that remove the breast tissue but not the skin, nipple, and areola. Concerns that a procedure called nipple-sparing mastectomy could raise the risk of a return of cancer have kept the surgery from being widely adopted in the past. That is changing as more surgical centres offer the procedure. Supporters say that in the right patients nipple-sparing mastectomies can be just as safe and successful as more conventional breast removal. Now a new study from Georgetown University Medical Center appears to support the claim. The analysis appears in the November issue of *Plastic and Reconstructive Surgery*.

Feature articles

Regular Biopsies Needed in Relapsed Breast Cancer Patients

Roxanne Nelson (*Medscape Medical News*)

September 25, 2011 (Stockholm, Sweden) — Tumour hormone-receptor and HER2 status can change in breast cancer patients during the course of their disease. Because these changes can significantly influence survival and can completely change the patient's clinical management, these patients should undergo regular biopsies, according to a new study.

The results of that study, presented here at the 2011 European Multidisciplinary Cancer Congress (EMCC), showed that there is substantial tumour instability during tumour progression.

"For example, we saw that 1 in 3 breast cancer patients alter oestrogen or progesterone hormone-receptor status, and 15% of patients change human epidermal growth-factor receptor 2, or HER2, status during the course of disease," explained lead author Linda Lindström, PhD, a postdoctoral fellow from the Department of Oncology-Pathology, Karolinska Institutet, Stockholm, Sweden.

Oestrogen-receptor (ER) status, which was assessed in the primary tumour and after the first relapse, showed a change in 32.4% of patients. Similar results were observed for progesterone-receptor (PR) status, and tumour changes were noted 40.7% of patients. The researchers observed a change in HER2 status from the primary tumour to the first relapse in 14.5% of patients. This data emphasizes the importance of regular biopsies in patients who relapse, she told *Medscape Medical News*. A similar pattern was seen in patients who experienced multiple consecutive relapses. In this group, ER, PR, and HER2 status changed in 33.6%, 30.2%, and 15.7% of patients, respectively.

Building on Evidence

Several recent small studies have suggested that the HER2 and hormone-receptor status of the relapsed tumour can be different than the status of the original lesion. In such cases, treatment options that were effective in the primary cancer might not be optimal for the relapsed/metastatic disease.

A study presented at the 2008 annual meeting of the American Society of Clinical Oncology, as [previously reported](#) by *Medscape Medical News*, showed that 45 of 160 samples (11%) exhibited changes in receptor status. Of this group, 11 (7%) were local recurrences and 34 (21%) were regional or distant relapses. Findings published in the *Annals of Oncology* (2010; 21:1254-1261) showed a much higher proportion of changes in these key receptors than has been previously reported. In that study, differences between nodal tumour tissue and primary breast cancer was seen in 46.9% of the patients with metastatic disease. In addition, many of the differences in expression between the primary tumour and the node were "large-magnitude (>5-fold) changes," those researchers noted.

Multiple Changes Seen

Dr. Lindström explained that her team conducted the first sizeable study to look at changes in tumours in multiple relapses in breast cancer patients, analysing data on nearly 500 women.

"Our aim was to assess ER, PR, and HER2 status throughout tumour progression, and specifically

to understand how they change in relapsed disease." The researchers evaluated breast cancer patients in the Stockholm healthcare region who experienced a disease recurrence from January 1, 1997 to December 31, 2007. In 459, 430, and 104 patients, ER, PR, and HER2 status, respectively, was assessed in the primary tumour and after first relapse. Information on ER, PR, and HER2 status in multiple consecutive relapses was evaluated in 119, 116, and 32 patients, respectively.

ER status changed in almost 34% of a cohort of 119 women, and between the different sites of relapse (local, loco-regional, and metastases). ER-positive status remained stable in 36.1% of patients, and ER-negative status remained stable in 30.3%. However, ER status changed from positive to negative in 16.0% during the course of their disease, changed from negative to positive in 12.6%, and alternated between positive and negative in 5%.

"In the clinical setting, the implication of oestrogen-receptor instability is important," said Dr. Lindström. "The loss of oestrogen receptor generally means resistance to hormonal therapy; these patients would benefit from a change in therapy." "An oestrogen-receptor gain would introduce an additional choice of therapy, which in some patients could lead to tumour response and improved survival in the metastatic setting," she explained.

Changes in receptor status appeared to adversely affect outcome, Dr. Lindström pointed out. Women with ER-positive primary tumours that switched to ER-negative status had an approximately 2-fold increased risk of dying, compared with those with stable ER-positive tumours. The data suggest that hormonal therapy promotes changes in ER status during disease progression. The researchers stratified the inpatient ER status in primary tumour and relapse according to the treatment they received: none, adjuvant hormonal therapy or chemotherapy, or a combination of both. One third of patients who received hormonal therapy lost ER expression when their disease relapsed, whereas only 1 of 10 untreated patients experienced altered ER status. In addition, only a few patients who gained ER had received hormonal therapy. Conversely, in those who received chemotherapy alone or no treatment, the proportion who gained ER status was 3 times greater.

Need to Do Biopsies

The technology is moving forward, and "we really need to do biopsies and stratification," said Anne-Lise Børresen-Dale, PhD, co chair of the EMCC scientific program and moderator of the press briefing where the findings were presented. "We need to do this to correctly treat our patients."

Rob Coleman, MBBS, MD, professor of medical oncology at the University of Sheffield, United Kingdom, noted that in the United Kingdom, "not been enough biopsies were done." "But there is an increasing uptake of biopsies," said Dr. Coleman, who was not involved with the study. "We are moving in that direction."

2011 European Multidisciplinary Cancer Congress (EMCC): Abstract 5024. Presented September 25, 2011.

Radiotherapy At Same Time As Chemo Better in Breast Cancer

Zosia Chustecka (*Medscape Medical News*)

September 25, 2011 (Stockholm, Sweden) — Traditionally after surgery, breast cancer patients undergo chemotherapy first and radiotherapy second, but a new large trial from the United Kingdom shows that synchronous administration of the 2 modalities results in better local control of the disease. The results come from the Sequencing of Chemotherapy and Radiotherapy in Adjuvant Breast Cancer (SECRAB) study, the largest to date to address this issue, with 2296 patients and a median follow-up of 8.8 years. They were reported here at the 2011 European Multidisciplinary Cancer Congress.

Are These Practice-Changing Results?

The results from this trial should change clinical practice, said principal investigator Indrajit Fernando, MD, consultant clinical oncologist at the University Hospitals Birmingham NHS Foundation Trust in the United Kingdom. At a press briefing, he said that his team has already changed the way they deliver the 2 modalities. Patients are really happy to have the radiotherapy sandwiched between the chemotherapy, he said, because it means that when they finish the last cycle of chemo, they have finished with the whole treatment, and can get on with their lives.

He also noted that the improvement in outcome is achieved at no extra cost; the treatments remain the same, it is just the timing of how they are delivered that is changed.

However, although the trial showed a significant reduction in local recurrences in patients who were treated synchronously, compared with those who were treated sequentially, there was no difference in overall survival between the 2 groups. That point made discussant Lori Pierce, MD, radiation oncologist from the University of Michigan Comprehensive Cancer Center in Ann Arbor, hesitate over whether the results are practice changing. "Perhaps," she said. If longer follow-up shows a survival advantage, then "absolutely" these results should change practice, she said. If there is a subgroup of patients that can be identified as particularly benefiting, then "most likely" practice should be changed. But for the time being, she suggested, the results need to be discussed with individual patients, who should be informed of the benefit of reduced local relapses, but also about the increase in acute skin toxicity that was seen with synchronous administration.

Radiotherapy Between Chemotherapy

In the trial, the standard approach of administering radiotherapy after completion of chemotherapy (sequential approach) was compared with synchronous administration, which was divided into 2 groups, Dr. Fernando explained. More than 60% of patients received radiotherapy (40 Gy in 15 fractions) delivered over 3 weeks, which is the most common approach used in the United Kingdom and Canada. The 3 weeks of radiotherapy was sandwiched between cycles 2 and 3 of chemotherapy. However, some patients had radiotherapy administered over longer periods, as is common in the United States and much of Europe, he said. For instance, some women received 45 Gy in 20 fractions over 4 weeks or 50 Gy in 25 fractions over 5 weeks. In these cases, the radiotherapy was started in the gap between chemotherapy cycles and then continued and was administered concomitantly.

The trial was started in 1983, and the standard chemotherapy used at that time in the United Kingdom was cyclophosphamide, methotrexate, and fluorouracil (CMF); later an anthracycline, usually epirubicin, was added to this regimen, he said. After a median follow-up of 8.8 years,

only 41 women had local recurrences in the synchronous group, compared with 63 women in the sequential group. The 5-year local recurrence rate was 2.8% vs 5.1% (hazard ratio, 0.65; $P = .03$) — it was reduced significantly by 35%, Dr. Fernando noted.

The benefit was seen across all treatments (various chemotherapy and radiotherapy regimens) and across all biological subgroups (e.g., grade, lymph node status), he noted.

There was an increase in acute skin toxicity with synchronous administration, compared with sequential administration (24% vs 15%; $P < .001$), but Dr. Fernando noted that most of these events were "modest and had healed within 4 weeks."

There was also an increase in modest/severe telangiectasia, seen in 2.5% of patients in the synchronous group and 1.3% in the sequential group ($P = .05$). Dr. Pierce pointed out that there was no difference between the 2 treatment groups in overall survival or in disease-free survival.

Both Dr. Pierce and Dr. Fernando referred to a study carried out by the Early Breast Cancer Clinical Trialists' Collaborative Group, which found that 1 breast cancer death can be avoided for every 4 local recurrences that are prevented (*Lancet*. 2005;366:2087-2106).

Dr. Fernando concluded that for breast cancer patients being treated with CMF or an anthracycline/CMF chemotherapy schedule, "clinical practice needs to be reviewed." He added that the results could probably be extended to patients being treated with a taxane as well as anthracycline and CMF.

However, Dr. Pierce cautioned that the results cannot be extrapolated to other chemotherapy regimens. She also noted that CMF is seldom used in the United States, and that a recent survey of community oncologists revealed that most treat breast cancer with a combination of anthracycline and taxane, or one or the other of these used alone.

"This trial raises the important issue of how radiotherapy and chemotherapy after surgery should be sequenced or integrated to obtain the best outcome in breast cancer," said the president of the European Cancer Organisation, Michael Baumann, MD, radiation oncologist at the University of Technology in Dresden, Germany.

"The SECRAB trial suggests that the risk of loco-regional recurrences could be reduced by applying radiotherapy simultaneously with chemotherapy," he said in a statement. "Long-term follow-up will still be necessary to assess potential late side effects and the benefits versus the risks of this approach, but I am convinced that this trial will spur a lot of discussion on optimizing adjuvant treatment in this common disease."

The SECRAB trial was funded by Cancer Research UK.

2011 European Multidisciplinary Cancer Congress (EMCC): Abstract 2BA. Presented September 25, 2011.