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McGrath Breast Care Nurse Monthly Newsletter

October 2011

Upcoming Conferences /Events

8th Scientific Meeting of the Australasian Society for Breast Diseases

October 6-8, 2011

Hilton on the Park, Melbourne

<http://www.asbd.org.au/meetings.php>

Rural Health Research Colloquium 2011

October 12-13, 2011

Dubbo, NSW

<http://www.rhrc.com.au/>

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/>

Lymphoedema Training in 2011

Sydney

October 18-25, 2011

For further information contact brendaelee@iprimus.com.au

Brisbane

November 12-18, 2011

For further information contact [Hildegard Reul-Hirsch@health.qld.gov.au](mailto:Hildegard_Reul-Hirsch@health.qld.gov.au)

New Resources

Enhancing Intimacy after Breast Cancer: A sexuality workshop for couples affected by Breast Cancer:

Date: Wednesday, 9 November, 2011, from 6pm-8pm

Venue: Think Pink Living Centre, 390 St Kilda Road, Melbourne.

Cost: Cost free

Facilitators:

Dr Susan Carr, Head, Psychosexual Department, Women's Hospital

Dr Amanda Hordern, Director, Cancer Information and Support Service. Cancer Council Victoria

Doreen Akkerman, Director of Strategic Health Communications International

Registration: To register call 9820 2888 or email thelivingcentre@thinkpink.org.au

Cancer and Sexuality

Free accredited online training available on Cancer and Sexuality available from ThinkGP.

This activity covers the assessment, diagnosis and management of issues related to sexuality in patients who have had cancer, and in their partners. The education will address the features related to the consequences of both the disease and its management. Options for solutions to minimise the impact of the disease on patients will be discussed as will methods of addressing the concerns raised by patients in relation to their sexuality following cancer. Equivalent to 1 CNE point. Go to <http://thinkgp.com.au/education/content/5258>

Latest Research and News

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

Key Function Of Mutation In Hereditary Breast And Ovarian Cancer Gene Discovered

It is widely known that mutations in the breast cancer susceptibility 1 (BRCA1) gene significantly increase the chance of developing breast and ovarian cancers, but the mechanisms at play are not fully understood. Now, researchers at Virginia Commonwealth University Massey Cancer Center have shown that certain BRCA1 mutations result in excessive, uncontrolled DNA repair, which challenges the prior assumption that mutations in BRCA1 only contribute to breast cancer through a reduction in function. Recently published in the journal *Aging*, the study led by Kristoffer Valerie, Ph.D., discovered that certain BRCA1 mutations affecting the BRCA1 C-terminal (BRCT) binding site resulted in excessive DNA repair, or hyper-recombination, which may contribute to the development of breast and ovarian cancers.

Menstrual cycle and surgical treatment of breast cancer: findings from the NCCTG N9431 study (Journal of Clinical Oncology): In a study to examine a trial of menstrual cycle phase and outcome after breast cancer surgery, it was found that when menstrual cycle phases were strictly defined, neither disease-free survival (DFS) nor overall survival (OS) differed between women who underwent surgery during the follicular phase vs the luteal phase. Nearly 30% of pts did not meet criteria for either follicular- or luteal-phase categories.

Mastectomy Offers No Survival Advantage in Young Women

Lumpectomy with adjuvant radiation and mastectomy provide "equivalent" overall and disease-specific survival in young women with early breast cancer, according to a new study presented at a press conference today in advance of the start of the 2011 Breast Cancer Symposium. Young women "should not choose a mastectomy based on the assumption of improved survival," said lead investigator Usama Mahmood, MD, who was at the University of Maryland in Baltimore when the study was undertaken.

Healthier living could cut 2.8 million cancer cases (Reuters)

Healthier lifestyles and better diets could prevent up to 2.8 million cases of cancer each year, the World Cancer Research Fund (WCRF) said on Wednesday, calling on governments to "avoid a public health disaster." The number of global cancers has increased by a fifth in less than a decade to around 12 million new cases a year, and along with other chronic diseases like heart and lung disease and diabetes are the world's biggest health challenges, the Fund said.

Plant-rich diets tied to lower breast cancer risk (Reuters Health)

Women with diets rich in vegetables, fruit and legumes may have a somewhat decreased risk of developing one type of breast cancer, a new study suggests. The findings, from a large, long-running study of U.S. nurses, showed that women with diets high in plant foods -- but low in red meat, sodium and processed carbohydrates -- tended to have a lower risk of developing certain breast tumours. The results were reported in the *American Journal of Epidemiology*, online August 10, 2011.

Mammography, Self Examination Benefit Under-50s (HealthDay News)

Annual mammography and self-breast exams should be used for detecting breast cancer, even for women younger than 50 years, for whom routine mammography and teaching self-breast exams was not recommended by the 2009 U.S. Preventive Services Task Force (USPSTF), according to a study presented at the 2011 Breast Cancer Symposium, held from Sept. 8 to 10 in San Francisco.

Low Breast CA Recurrence Rate in Women ≤40 Years(HealthDay News)

Women diagnosed with breast cancer at age 40 or younger have low overall recurrence rates at five and 10 years; and young women with early-stage breast cancer have similar survival rates when treated with breast-conservation therapy (BCT) or mastectomy, according to two studies presented at the 2011 Breast Cancer Symposium, held from Sept. 8 to 10 in San Francisco.

Cancer drug resistance clue found

It may be possible to extend the usefulness of cancer drugs by preventing drug resistance in tumours, say researchers. A study, published in *Science Translational Medicine*, showed a chemical reaction went into overdrive as resistance developed. Scientists said drugs were already on the market which interfered with the process.

Effective New Strategy For Treating Aggressive Breast Cancer Revealed By Singapore Scientists

The 2nd September issue of the journal *Molecular Cell* has published a discovery that opens the door for the development of more effective treatment strategies for aggressive breast cancers associated with EZH2, an enzyme that promotes the estrogen receptor-negative aggressive breast cancer, which remains unresponsive to current treatment strategies.

Smoking Ups Postmenopausal Sex Hormone Levels (HealthDay News)

Postmenopausal women who smoke have increased levels of androgens, estrogens, 17-hydroxprogesterone, and sex hormone-binding globulin (SHBG). Judith S. Brand, from the University Medical Centre Utrecht in the Netherlands, and colleagues investigated the relationship between smoking and endogenous sex hormone levels in 2,030 postmenopausal women between the ages of 55 and 81 years, from the Norfolk population of the European Prospective Investigation into Cancer. The study was published online in the *Journal of Clinical Endocrinology & Metabolism*.

Mum's Cancer Shows Up Earlier in Daughters

Women who are diagnosed with breast and ovarian cancers that are linked to some inherited mutations appear to develop the diseases earlier than the previous generation, researchers reported. More than 100 women with *BRCA*-related cancer developed disease almost eight years younger than relatives in the previous generation, according to Jennifer Litton, MD, and colleagues at the University of Texas MD Anderson Cancer Centre in Houston. The findings add to the evidence for so-called "anticipation" in breast and ovarian cancer -- a phenomenon in which later generations have earlier onset or more severe disease than their ancestors, Litton and colleagues reported online in *Cancer*.

Fish oils block chemotherapy drug

Fats found in fish oil supplements can stop chemotherapy drugs working, according to researchers. Writing in the journal *Cancer Cell*, they advise cancer patients not to take the supplements. The two fatty acids involved, which are also produced by stem cells in the blood, lead to tumours becoming immune to treatment.

Venlafaxine, Clonidine Reduce Hot Flashes in Breast Cancer (HealthDay News)

Venlafaxine and clonidine effectively manage hot flashes in patients with breast cancer, with hot flash scores reducing more immediately with venlafaxine than clonidine, and reducing more significantly with clonidine during week 12 of treatment than with venlafaxine, according to a study published online Sept. 12 in the *Journal of Clinical Oncology*.

Spice up broccoli to fight cancer

Combining broccoli with spicy foods including mustard, horseradish, or wasabi could enhance its cancer-fighting power, new research has found. A study by the University of Illinois found teaming the vegetable with spicy food containing the enzyme myrosinase also ensures it is absorbed in the upper part of the digestive system for maximum health benefit. The study was published in the *British Journal of Nutrition*.

Women's cancers reach two million

Two million women were diagnosed with breast or cervical cancer last year, according to global figures. A sharp rise in cases was seen in women under 50 in low-income nations, say US experts. Women in richer countries fared better due in part to screening, medicines, anti-smoking

policies and vaccines, they report in *the Lancet*. The research backs calls for world leaders to make cancer prevention a priority in the developing world.

Screening Tied to Rise in Mastectomy

The introduction of a breast cancer screening program was associated with an increase in mastectomy rates, Norwegian researchers found. Among women invited for screening -- those ages 50 to 69 -- the mastectomy rate increased by 9% from the pre-screening period through the introduction of screening (HR 1.09, 95% CI 1.03 to 1.14), according to Pål Suhrke, a PhD candidate at Oslo University Hospital, and colleagues. At the same time, the rate dropped by 17% in women ages 40 to 49 and by 13% in women ages 70 to 79, two age groups that were not invited for screening, the researchers reported online in *BMJ*.

Poor women get more unneeded breast cancer surgery (Reuters Health)

Old, poor and Hispanic women are all more likely to have lymph nodes under the armpit removed unnecessarily during breast cancer surgery, a new study finds. That's despite 2005 guidelines recommending a gentler surgery that spares most of the lymph nodes, avoiding side effects like pain, swelling and numbness down the line. *Archives of Surgery*, September 19, 2011.

Breast Cancer: Stress Receptor Found to Stimulate Growth and Migration of Cancer Cells (ScienceDaily)

It's a common belief that there's a link between chronic stress and an increased risk of cancer. In new research published online by the *International Journal of Cancer*, scientists at The University of Western Ontario have taken a step toward confirming that belief. Research led by Dwayne Jackson of the Departments of Medical biophysics and Biomedical Engineering has identified a particular neurotransmitter released in response to stress, that stimulates both cancer cell growth and migration in breast cancer. The study was published in *International Journal of Cancer*, 2011

No safe time to use HRT warns expert (West Australian)

There is no 'safe' time to use hormone replacement therapy and a woman's risk of breast cancer doubles when taking the medication for five years around menopause, a world expert says. Current advice is that most women can safely take HRT for up to five years, but Professor Valerie Beral, who heads Cancer Research UK's epidemiology unit, said it was unfair to suggest to women it had no risks. The safety of HRT, which is used to control menopausal symptoms such as hot flashes, has been debated for almost a decade after results from the big US study Women's Health Initiative suggested it increased the risk of breast cancer.

GPs offer breast cancer after-care as number of patients increases (Sydney Morning Herald)

Women who have undergone surgery for early-stage breast cancer could be monitored afterwards by their GP instead of a hospital clinic, under a Federal Government project that acknowledges there will not be enough specialist doctors for the coming wave of cancer cases among ageing baby boomers. Christine Giles, Executive Director and Head of Policy and Strategy at the federal agency Cancer Australia, said GPs would be responsible for examining women and ordering mammograms, and discussing any psychological or other problems caused by the cancer.

Zoledronic Acid Plus Chemotherapy Reduces Risk Of Breast Cancer Recurrence In Post-Menopausal Patients (*New England Journal of Medicine*)

Post-menopausal breast cancer patients who receive zoledronic acid in addition to chemotherapy have a significantly lower risk of cancer recurrence, researchers from Weston Park Hospital, Sheffield, England, reported at the *European Multidisciplinary Cancer Congress 2011, Stockholm, Sweden*. The presenters explained that their findings may provide a better understanding of the mechanisms behind breast cancer recurrence. Professor Robert Coleman and team recruited 3,360 females with breast cancer from 174 centers. They all had Stages II and III breast cancer. They were randomly selected to receive chemotherapy and/or endocrine therapy, with or without zoledronic acid. An interim analysis appeared to show no clinical benefits, so they released the data so that it could be scrutinized in more detail.

Aromatase inhibitors are effective in younger post-menopausal breast-cancer patients

Aromatase inhibitors are effective in younger post-menopausal breast-cancer patients and in those with chemotherapy-induced menopause, a study finds, contrary to previous concerns. Writing in *Breast Cancer Research and Treatment* this month, Australian and international researchers noted it was thought that these two subpopulations of women might derive a "reduced benefit" from the aromatase inhibitor letrozole due to residual or returning ovarian function. Instead, they found that among patients aged 45-55 with natural menopause (n=641) and those with chemotherapy-induced menopause (n=105) there was no disadvantage in disease free survival (DFS) compared with older women with natural menopause. "The incidence of recovery of ovarian function in this population is very low, though this possibility must always be considered to ensure appropriate endocrine adjuvant treatment for each individual patient."

In Breast Cancer, Moving Toward More Personalized Hormone Therapies

After treatment for early-stage breast cancer, many postmenopausal women with estrogen-receptor positive tumours decide to take drugs, such as an aromatase inhibitor or tamoxifen, to prevent or delay a recurrence of their disease. Selecting which treatment strategy may be best for the individual patient is difficult, in part because there is conflicting scientific evidence. Guidelines, such as those from the American Society of Clinical Oncology, suggest that all post-menopausal women should receive an aromatase inhibitor either alone or before or after tamoxifen, but they do not suggest an optimal approach.

Feature article

Janis C. Kelly (Medscape)

September 14, 2011 — Data from nearly 5000 women treated with taxane regimens for breast cancer show that development of taxane-induced neuropathy does not contribute to better survival. The new finding largely answers questions raised by previous studies in which treatment-induced side effects appeared to predict better outcomes, said Bryan P. Schneider, MD, who reported the study at the 2011 Breast Cancer Symposium in San Francisco.

"Neuropathy of grades 2-4 did not affect recurrence-free survival, disease-free survival, or overall survival in any breast cancer subtype or for any of the 4 regimens used," said Dr. Schneider, who is Associate Professor of Medicine and Associate Director of the Indiana Institute for Personalized Medicine at Indiana University's Simon Cancer Centre in Indianapolis.

Dr. Schneider and colleagues analysed data from the E-1199 study, which included 4950 women with axillary lymph node-positive or high-risk lymph node-negative breast cancer who received up to 4 cycles of doxorubicin/cyclophosphamide every 3 weeks, followed by paclitaxel, 175 mg/m² every 3 weeks x 4; paclitaxel, 80 mg/m² weekly x 12; docetaxel, 100 mg/m² every 3 weeks x 4; or docetaxel, 35 mg/m² weekly x 12. The findings are based on the 4702 women who received at least 1 taxane dose.

Grade 2-4 neuropathy rates ranged from 20% and 27% in the paclitaxel groups and 16% in both of the docetaxel groups.

The researchers reported, "In a model including age, tumour size, nodal status, treatment arm, neuropathy, and the neuropathy-treatment interaction, there was no relationship between neuropathy and [disease-free survival] and [overall survival] in the entire population, for any of the individual treatment arms, or for any breast cancer subtypes, whether analysed as a time-dependent covariate or using a landmark analysis."

Neuropathy rates were higher in black patients (25% vs. 19%; $P = .02$) and in obese patients (21% vs. 19%; $P = .04$) but did not vary with age. There was also a suggestion of higher neuropathy risk for patients whose blood glucose rose during treatment, which might be an indication of diabetes or prediabetes, said Dr. Schneider.

SNPs May Aid in Patient Selection for Taxanes

The researchers concluded that because taxane-induced neuropathy is not associated with outcome, "validation of SNPs [single nucleotide polymorphisms] predictive of neuropathy may be useful in identifying patients at higher risk for neuropathy but not taxane benefit, and thereby improve therapeutic individualization."

An American expert at the meeting echoed this comment about the potential of SNPs.

"As components of adjuvant chemotherapy, taxanes improve relapse-free and overall survival. Their use can be limited by peripheral neuropathy. Prior work has demonstrated the potential for single nucleotide polymorphisms to predict for taxane neurotoxicity," said Andrew Seidman, MD, from the Breast Cancer Medicine Service at Memorial Sloan-Kettering Cancer Centre in New York City. He is also a member of the 2011 Breast Cancer Symposium News Planning Team.

Dr. Seidman also reiterated the study's major findings. "The current analysis, derived from ECOG [European Clinical Oncology Group] 1199 provides reassurance that taxane neuropathy is not linked to taxane benefit," he said.

The researchers suspect that the genetic marker *RWDD3* will emerge as one of the biomarkers for susceptibility to taxane neuropathy. Dr. Schneider said that it helps stabilise cells during times of stress and that alterations in this gene might make patients' nerve cells more fragile during the stress of taxane treatment.

"We are looking forward to a time when we can look at the tumour and know what drugs are likely to be effective against it, and look at the patient and know which drugs are likely to cause side effects for her. Between the 2, we will be able to say, 'Here is our best approach to therapy for you,'" Dr. Schneider told *Medscape Medical News*.

2011 Breast Cancer Symposium. Abstract #270. Presented September 8, 2011.