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## ESTRADIOL AND PHTHALATS INFLUENCES MIGRATION AND PROLIFERATION THROUGH HDAC6 IN ESTROGEN-INDEPENDENT/DEPENDENT BREAST CANCER CELLS

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**Objectives:** Environmental estrogens (Phthalates) are endocrine disrupting chemicals that can mimic the function or activity of the endogenous estrogen  $17\beta$ -estradiol. This study is to determine whether estradiol and phthalates have the same function that mediation proliferation and migration marker histone deacetylase 6 (HDAC6) in estrogen-independent/dependent breast cancer cell

**Methods:** We used the common model of human breast cancer MCF-7 and MDA-MB-231 examine the ability of phthalates to activate human HDAC6 in this system. Phthalates including butyl benzyl phthalate (BBP), di (n-butyl) phthalate (DBP), di(2-ethylhexyl) phthalate (DEHP) and mono (2-ethylhexyl) phthalate (MEHP).

**Results:** Estradiol and phthalates (10<sup>-6</sup>M, 24hr) are both increase S phase and wound healing of ability and influences HDAC6, but not effect matrix metalloproteinase (MMP) family protein expression in breast cancer cell lines. Furthermore, estradiol and phthalates can reversion HDAC6 protein level in short interfering RNA (siRNA) to inhibit HDAC6 expression of cell lines.

**Conclusions:** The present study indicates that estradiol and phthalates mediation HDAC6 protein expression, but not via estrogen receptor in breast cancer cell. Hopefully, the accomplishment of this project will provide a better understanding of the carcinogenesis of breast cancer and provide useful information for the clinicians to decide the treatment for each individual breast cancer patient.

Keywords: Estradiol, Phthalats, HDAC6, breast cancer.

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# MARKED REDUCTION OF BREAST, ENDOMETRIAL AND OVARIAN CANCER IN USERS OF BIO-IDENTICAL ESTRADIOL AND TESTOSTERONE SUBCUTANEOUS PELLETS

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**Objectives:** A study was conducted to evaluate the incidence of breast, endometrial and ovarian cancer in users of bioidentical estradiol and testosterone subcutaneous pellets.

**Methods:** 976 patients were followed in a ten year period. the patients received subcutaneous pellets every four to six months.

**Results:** Only one case of breast cancer and one case of endometrial cancer developed in this ten year period, there were no cases of ovarian cancer.

**Conclusions:** Subcutaneous estradiol and testosterone pellets do not increase the risk of development of any of these cancers. And in fact maybe protective.

**Keywords:** Cancer, subcutaneous pellets, biologically identical estradiol testostereone.

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### ESTABLISHING A DEDICATED MENOPAUSE SERVICE FOR WOMEN WITH BREAST CANCER OR AT HIGH RISK FROM BREAST CANCER

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**Objectives:** Women with breast cancer or at high risk have special needs not addressed by breast cancer or menopause clinics. Oncologist and menopause specialist opinion differs over safety of hormonal agents and there are a variety of non-hormonal agents available for symptomatic relief. The aim of this project was to identify patient need, produce a customised assessment and develop treatment strategies.

**Methods:** A monthly clinic, involving senior staff and breast cancer nurses, was established for patients with, or at high risk from, breast cancer with referrals from the Breast Unit or General Practitioners. Following a literature search a prescribing policy was developed, a database constructed and

audits initiated to assess efficacy and safety. Patient satisfaction surveys have been implemented. A post clinic multi-disciplinary team meeting reviews patient case management, with quarterly appraisals involving breast surgeons and oncologists to reassess overall standards and strategy. **Results:** During a one year period we had 83 consultations constituting 30 new referrals (age range 43-77; ethnic breakdown 22 Caucasian, 7 Asian, 1 Afro-Caribbean). We have completed a subject-specific history proforma and developed a prescribing protocol. A non- hormonal Treatment Audit is reported elsewhere.

**Conclusions:** There is a small but definite need for a specialist breast cancer menopause service linked to a specialist unit. The evidence based pilot studies have allowed development of guidelines for use of non-hormonal agents. Better links between menopause and breast cancer specialists are needed to provide improved patient care.

Keywords: Breast cancer; non-hormonal agents; model service delivery.

### Cardiovascular

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## BELIEVES AND BEHAVIOR OF IRANIAN POST MENOPAUSAL WOMEN TOWARD CARDIOVASCULAR RISK FACTORS

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**Objectives:** Cardiovascular disease (CVD) is one of the main reasons for death in developed as well as developing countries. Menopausal women because of lacking of estrogen are more at risk for CVD.

**Methods:** The present study uses baseline data of our clinical trial which tried to improve the CVD risk profile among the postmenopausal women using the Health Belief Model. This study started on July 2007. 147 healty post menopausal women where enrolled. Their perceptions were measured using 64 questions according to Health Belief Model (HBM). The physical activity of participants measured using the International Physical Activity Questionnaire (IPAQ). Anthropometric measurements of participants were measured. Laboratory tests have done using a fasting blood sample.

**Results:** The mean age of menopause was 46.7. Most of participants had good knowledge about CVD (87.8%), but their attitude toward CVD risk factors were weak (only 40.2% of participants had good attitude). There was not vigorous intensity physical activity. But they used to walk and the average of physical activity per week was 344.8 (SD=318.3) minute per week. Participants were at high risk for CVD because of their abnormal BMI (Mean: 30.4, SD: 5.61), waist to hip ratio (Mean: 0.82, SD: 0.06), Cholesterol (Mean: 217.5, SD: 36.5) and HDL (Mean: 47.1, SD: 14.2).

**Conclusions:** Iranian post menopausal women need to receive effective educational programs to change their lifestyle to the healthier state especially toward CVD.

Keywords: Menopausal women, CVD, believe and behavior.

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# IMPACT OF DIABETES AND CIGARETTE SMOKING IN WOMEN WITH CORONARY ARTERY DISEASE TREATED WITH PERCUTANEOUS CORONARY INTERVENTION

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**Objectives:** The aim of this study is to compare the impact of Diabetes Mellitus (DM) and Cigarette Smoking (CS) in women with Coronary Artery Disease (CAD) undergone to Percutaneous Coronary Intervention (PCI). **Methods:** 165 women were hospitalized in our Institution with CAD diagnosed over the period of 2002-2007. The patients' (pts) age range from 36 to 58 years (mean 48,54±4,47).The admission clinical features were categorized as Angina or Acute Myocardial Infarction (AMI). We