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Hong Kong Breast Cancer Foundation

“Updates on Early Detection of Breast Cancer” Seminar

Abstract –Method of breast cancer screening at the world standard

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Mammography Saves Lives !

There have been multiple randomized controlled trials evaluating screening mammography on patients ranging in age from their 40s to 70s. The overwhelming evidence-based data show there is a 26% to 30% reduction rate in mortality from breast cancer.

Mammography is an X-ray technique to examine the breasts. The breast tissue is compressed gently between two plastic plates, now more comfortable with add-on soft mammopads. Two views of the breasts are obtained. There is no problem imaging Chinese women with small breasts. Mammograms are generally not painful. Radiation induced cancer from mammography is theoretical, extrapolated from high dose studies but actually none have been reported. Actual radiation dose is approximately 0.3 to 0.4 mSv compared to background radiation of 2 to 3 mSv per year in Hong Kong. The tumours detected by mammography are generally smaller than those that are palpated by the patient. There are some limitations with mammography, namely some patients have to be recalled for additional views, some have to be biopsied and a small percentage of cases of breast cancers may be missed because the breasts are dense. There are certain “harms” cited by the US Preventive Service Task Force (USPSTF). Prolonged anxiety and worry over additional test, biopsy or false positive results. Possibility of over diagnosis and over treatment and only 10% decrease in number women with late stage cancers are found. Dr. Pruthi from Mayo Clinic says “Physicians cannot distinguish between the dangerous breast cancers from the non-life-threatening ones, so annual mammogram remains the best option for detecting cancer early and reducing the risk of death from breast cancer”. The Cochrane Collaboration Review on mammographic screening concludes “there is no mortality benefit.” American College of Radiology says this study is based on flawed data. Professor SW Duffy, a mathematics professor from Lincoln’s Inn Fields, London said the authors had “heavy reliance on arbitrary principles and were unable to perform an adequate unbiased review of the material”.

% of	Category	Description	Mammographic guidance
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Women			
~80%	Average risk	Women with no identifiable risk factor	ACR & ACS Annual Mammographic screening at age 40
~15%	Moderately increased risk	<p>15% to 20% lifetime risk of breast cancer.</p> <p>Women with biopsy proven lobular hyperplasia,</p> <p>Atypical ductal hyperplasia (ADH),</p> <p>Ductal carcinoma-in-situ (DCIS),</p> <p>Invasive breast or ovarian carcinoma regardless of age.</p>	<p>ACR (American College of Radiology) :</p> <p>Annual mammography screening at time of diagnosis.</p> <p>Consider annual MRI.</p> <p>ACS (American Cancer Society):</p> <p>Annual mammography screening at time of diagnosis.</p> <p>Talk to clinician about MRI.</p>
~5%	High risk	<p>>20% lifetime risk of breast cancer.</p> <p>BRCA 1, BRCA 2 gene mutation.</p> <p>Positive family history for BRCA gene mutation but untested themselves.</p> <p>Positive family history for first degree relative with premenopausal breast Ca or ovarian Ca.</p> <p>History of mantle radiation (Hodgkins disease) between 10 and 30 years.</p>	<p>ACR & ACS:</p> <p>Start annual mammographic screening at age 30 or 10 years earlier than when the youngest relative was diagnosed with breast cancer.</p> <p>Start annual mammogram 8 years after irradiation but not earlier than 25 years of age for mantle radiation patients.</p> <p>Add annual MRI starting at age 30.</p>

ACR: (American College of Radiology)

ACS: (American Cancer Society)

Screening Mammography is recommended for women in all categories. No other imaging examination can replace mammography. This includes Ultrasound, MRI, Nuclear Medicine, Sestamibi, PET scan, Positron Emission Mammography (PEM), Thermography and Electrical impedance examinations. Mammography is the only imaging modality proven to reduce mortality from breast carcinoma.

END

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2013.04.14

香港乳癌基金會

「乳癌早期檢測新資訊」研討會

世界標準的乳癌檢測方法

羅吳美英醫生 養和醫院放射科醫生

乳房 x 光造影可拯救生命!

過去有多個以隨機對照試驗方式的研究去評估在 40-70 歲的患者使用乳房 x 光造影作為乳癌普查方法，得出的數據壓倒性地顯示使用乳房 x 光造影檢查能將乳癌死亡率減低 26%-30%。

乳房 x 光造影是以 x 光去檢查乳房，在進行造影時，乳房組織會被輕輕壓在兩個塑膠板之間 (現時附加軟墊使被檢查者感覺較舒適)，我們會從兩個角度檢查乳房的組織。即使中國婦女的乳房普遍較小，也不會影響進行造影的結果。一般來說，乳房 x 光造影不會造成痛楚。乳房 x 光造影的輻射量引至癌症只是理論性的，實際上並沒有文章記錄，只能從高劑量輻射的研究推斷出來。造影真實的輻射量很小，大約是 0.3 至 0.4 毫希，相比香港每年的背景輻射量是 2 至 3 毫希。由乳房 x 光造影所偵測到的腫瘤一般都比患者自己觸摸到的較小。乳房 x 光造影會有些限制包括：被檢查者可能會需要進行額外的觀察、有些則需要進行進一步的組織檢查、小部份的腫瘤會因為乳房的組織密度高而沒有被偵測出來。美國預防服務工作組(US Preventive Service Task Force (USPSTF)) 指出乳房 x 光造影也有“害處”，當中包括被檢查者可能會為額外的測試、組織檢查、或假陽性結果而感到長時間的焦慮和擔心。乳房 x 光造影同時也會帶來過度的診斷及過度治療以及造影只能減低 10%晚期的患者。一位美國的梅奧醫療中心的醫生 (Dr. Pruthi) 說：「醫生不能分辨出危險與非危及生命的乳癌，所以每年透過乳房 x 光造影去偵測早期的乳癌及降低乳癌死亡風險仍然是最好的選擇。」一個國際機構(The Cochrane Collaboration Review)總結說乳房 x 光造影「並沒有降低死亡率」，不過，美國放射學會指出這項研究採用的是有缺陷的數據。倫敦 Lincoln's Inn Fields 的一位數學教授 (Duffy SW 教授)也指出這些作者「過份依賴獨斷的原則，並沒有對所有數據進行充分而公正的審查」。

% 婦女	類別	描述	乳房 x 光造影的指引
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~80%	平均風險	沒有已知風險的婦女	ACR & ACS: 從 40 歲起每年進行乳房 x 光造影例行檢查
~15%	風險增加	一生有 15% - 20% 患乳癌風險，即婦女曾患有： 小葉增生 非典型導管增生 原位癌 入侵性乳癌或卵巢癌 (不論年齡)	ACR: 由確診起每年進行乳房 x 光造影例行檢查 可考慮每年加進行磁力共振掃描 ACS: 由確診起每年進行乳房 x 光造影例行檢查 Annual 可向醫生查詢有關磁力共振掃描
~5%	高風險	一生有 >20% 患乳癌風險，即婦女： 有 BRCA 1, BRCA 2 基因變異 家族有 BRCA 基因變異歷史但自己沒有進行基因測試 直系家屬有 BRCA 基因變異歷史而在更年期前患有乳癌或卵巢癌 曾在 10 至 30 年內因霍奇金病接受「斗蓬野輻射」	ACR & ACS: 從 30 歲起或比最年輕的親屬確診乳癌的年齡小十歲起每年進行乳房 x 光造影例行檢查 接受「斗蓬野輻射」的病人，在接受輻射八年後 (但不早於 25 歲) 起每年進行乳房 x 光造影例行檢查 從 30 歲起每年進行磁力共振掃描

美國放射學會

美國癌症學會

無論屬於那一個類別，婦女也被建議進行乳房 x 光造影檢查。沒有其他影像檢查可以替代乳房 x 光造影，包括超音波、磁力共振掃瞄、核子醫學掃瞄、正電子掃瞄、正電子乳房掃瞄、熱成像及電阻抗檢查。乳房 x 光造影是唯一被證實可以減少乳癌死亡率的檢查方法。