

To: Assignment Editors, Managing Editors and Reporters
(Immediate release)

Hong Kong Breast Cancer Registry Report No. 13 Press Conference
15 years of Data Analysis
Use of PET scan in the preoperative staging of breast cancer

Hong Kong, 20 September, 2021 - The Hong Kong Breast Cancer Registry (HKBCR) published its 13th annual research report at a press conference today, along with a study of utilisation of Positron Emission Tomography (PET) scan in the preoperative staging of breast cancer. The study revealed that the overall utilisation of PET scan has more than doubled over the past 15 years (from 25.7% to 61.0%). Patients at advanced stage and with metastatic disease were more likely to undergo PET scan than that of at early stage. The HKBCR panel has proposed local guidelines in the appropriate use of PET scan in assessment of cancer extent.

PET more common for advanced stage patients

Breast cancer has become the most common cancer affecting women in Hong Kong. Female breast cancer cases have tripled from 1266 in 1994 to 4,618 in 2018.

Recently, PET scan has become a popular imaging tool. The HKBCR research team studied the usage pattern of PET scan in the pre-operative staging of breast cancer. Records of female breast cancer patients since 2006 were retrieved from the HKBCR. A total of 6,587 patients included were further stratified into two groups – with or without PET scan in preoperative assessment.

The study showed that PET scans were more commonly performed for patients with stage III (71.4%) and stage IV (90.2%), and less involved in early stage cancers, such as stage 0 (13.6%) and stage I cancers (21.2%). Overall, the utilisation of PET among patients was 40%. There is an increasing trend of patients with early stage cancer using pre-operative PET scan.

PET service more easily accessible nowadays

Dr Polly Cheung, Founder of the Hong Kong Breast Cancer Foundation indicated that comparing the use of PET scan by cancer stage among patients (N=6,587) in three cohorts, the overall utilisation of PET has increased from 25.7% in 2006-2010 to 61.0% in the 2016-current cohort.

In addition, Dr Cheung said that the usage of PET scan as cancer staging tool has become more common than a combination of chest x-ray and ultrasound of abdomen in the past decades.

Dr Catherine Wong, Specialist in Nuclear Medicine, Hong Kong Sanatorium & Hospital stated that PET/CT is a non-invasive diagnostic imaging technique. The procedure involves an intravenous injection of a small amount of radiopharmaceuticals, like ^{18}F -FDG. Radiopharmaceutical will accumulate in cancer cells, and the abnormal lesion will be revealed by scanning image. ^{18}F -FDG PET/CT is useful in detecting nodal and distant metastasis in breast cancer.

Dr Wong explained, “for the patient of advanced stage breast cancer, PET scan is more effective and accurate to detect metastasis”. However, she addressed that there may be false positive for patients who have received COVID-19 vaccines. She advised people to delay 4-6 weeks before performing PET scan and injection should be in the arm on opposite side of breast cancer.

Dr Chun-chung Yau, Member of Management Committee of the Hong Kong Breast Cancer Foundation said PET scan is a relatively new technology with high sensitivity. However, some may consider it relatively expensive and it is associated with radiation exposure.

The HKBCR panel has proposed local guidelines in the use of PET scan, recommendations of which are as follows:

1. PET scan should NOT be a routine investigation in
 - a) breast screening;
 - b) clinically benign breast cancer diseases;
 - c) early stage breast cancer (tumor size smaller than 2cm).

2. PET scan COULD BE CONSIDERED in

- a) tumor size greater than 5cm;
- b) suspected or confirmed node positive cancer;
- c) suspected or confirmed metastatic disease;
- d) neoadjuvant chemotherapy.

Mrs Eliza Fok, Chairman of the Hong Kong Breast Cancer Foundation concluded that PET scan should be used when recommended by medical professionals and should not be used to check the presence of cancer in the breast. Instead, mammogram, ultrasound and MRI are the appropriate tools.

Mrs Fok said that “Early detection saves lives”. The Foundation has advocated population-wide screening in a three-phase implementation strategy. A screening programme for high-risk women should be put in place as the first phase, has been rolled out by the Government for eligible women aged 44-69. Second phase is to provide screening for women in low-income districts. Third phase will be the population-wide screening.

Please go to this link for the event press release, slides, bulletins and photos:

<https://drive.google.com/drive/folders/1M8NvwQpfK0MRpNqrMfagLOGfkHn9SlnK?usp=sharing>

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