High Risk Breast Clinic in Tung Wah Breast Centre: Genetic Testing and Counselling for Women at Risk for Hereditary Breast Cancer

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Introduction
A High Risk Breast Clinic has been established in Tung Wah Hospital (TWH) since 2007. With the support of Hong Kong Hereditary Breast Cancer Family Registry, eligible high-risk breast cancer patients in the public sector and their families are referred for free access of genetic screening. Genetic counselling is offered and options of management are also planned at the clinic.

Objectives
To evaluate the outcome of the High Risk Breast Clinic since its establishment

Methodology
Breast and ovarian cancer patients, who followed up in the public sector and fulfilled the inclusion criteria for genetic testing, were referred and seen at the High Risk Breast Clinic. Those patients and their families seen during January 2007 to September 2016 were recruited in this study.

Result
Data of 2117 patients who attended the High Risk Breast Clinic was analyzed. BRCA mutation was found in 197 (9.3%) patients, which is comparable to the finding of other high risk cohort studies. 82 patients (41.6%) had BRCA1 mutation while 115 (58.4%) had BRCA2 mutation. This finding is different from the Western studies where more BRCA1 mutations were found. Among these mutations six founder mutations in Chinese have been discovered.
Family members of these BRCA mutation carriers were invited for genetic testing. Total 398 family members were tested. 47.0% of them were tested positive. For the choice of management, 78% of our BRCA mutation carriers chose surveillance. 13% of them considered prophylactic bilateral salpingo-oophrectomy, 8% considered prophylactic contralateral mastectomy, and only 1% considered both prophylactic bilateral salpingo-oophrectomy and contralateral mastectomy.

The High Risk Breast Clinic, since its establishment in 2007, has achieved in identifying those patients who are at high risk of hereditary breast and ovarian cancer, providing timely counselling to the mutation carriers and their families, offering effective management to those in need, and collecting constructive data for our own Chinese population.