

A HOLISTIC APPROACH TO BREAST CANCER SURGERY

Improving physical and psychological outcomes for breast cancer patients.

Tianjin Medical University Cancer Institute and Hospital (TMUCIH), home to the oldest and largest breast cancer treatment centre in China, is addressing the paucity of research on breast-conserving surgery and breast reconstruction for patients in east Asia, and raising regional awareness and confidence about both techniques.

Studies have shown that at 15.6%, the proportion of young breast cancer patients in China is significantly higher than the 5.2% in Western populations. In response, the TMUCIH team has collated more than 3,000 cases and established the largest retrospective and prospective database of cases in China of patients aged 35 years and under.

The department has also initiated a multicentre, non-randomized, open and

observational study on the prognosis and efficacy of targeted therapy and immunotherapy in young breast cancer patients, in order to map the genomic variation of the young breast cancer population in China.

In China, the rate of breast reconstruction surgery, such as implant or autologous reconstructions, is also much lower than that in Europe and the US. This may be due to a lack of both patient understanding and of surgeons trained in the techniques, as well as a lack of research specific to the Chinese or Asian context.

This is set to change with the institute's breast cancer data and resource platform database, which includes more than 50,000 case files of Chinese patients, more than 250,000 stored breast paraffin samples and more than 6,000 fresh tissues.

On top of this, TMUCIH's breast reconstruction department, which in 2010 was the first to be established in China, created a database of breast reconstruction cases and morphology, which houses the information of 2,258 breast reconstruction patients from May 2001 until the present. The database includes basic patient data, clinicopathological information, treatment details, and outcomes, and provides an evidence-base for the development of standardized procedures and guidelines for breast reconstruction.

Using this database, researchers at TMUCIH conducted clinical studies on the timing and modalities of reconstruction, as well as studies on the safety, need, and feasibility of immediate breast reconstruction from oncological, psychological, and surgical safety perspectives, respectively.

Specifically, they proposed that immediate autologous breast reconstruction, where the breast is reconstructed from a patient's own tissue, is a feasible option for radiotherapy patients in China.

They found that the timing of radiotherapy and reconstruction did not affect the total flap complication rate, secondary surgery rate, or aesthetic satisfaction. Radiotherapy after immediate reconstruction increases the rate of flap contracture and the extent of fat necrosis, and they suggested surgical intervention before radiotherapy for patients with flap fat necrosis. These findings were cited in the national expert consensus on plastic and reconstructive breast oncology, which influences clinical decisions on the timing of reconstructive surgery and the timing of secondary surgical intervention in patients requiring postoperative radiotherapy. ■