PERSBRA

(PERSonalized BReAst holder system)

Bosomeer
嘉存生醫股份有限公司

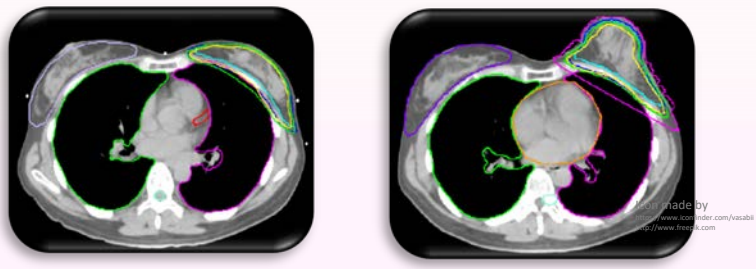
Personalized Radiotherapy Aid for Breast Cancer Patients

Clinical outcome

Our data indicate that PERSBRA is an effective cardiac sparing technique for left-sided WBI. That would reduce the risk of death from ischemic heart disease for normal people. It also effectively reduced radiation exposure to lungs, which would reduce the probability of pneumonitis. Furthermore, it is a friendly and personalized device with minimal setup time and short learning curve. We believe that the potential to reduce RIHD with PERSBRA warrants further clinical investigation.

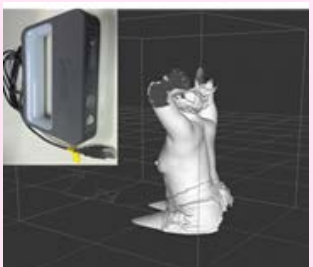
Whole breast irradiation (WBI) is an indispensable component of early breast cancer treatment. Radiation exposure to the heart and to the left anterior descending artery (LAD) during WBI is a risk factor of radiation-induced heart disease (RIHD). Therefore cardiac sparing represents a reasonable risk reduction strategy. Many approaches were used to reduce radiation exposure when WBI was carried out which including prone position and deep breathing control. In most situation, supine position was easier to practice but would lead to a greater amount of damage to the lungs and heart, as compared to the prone position. To reach the benefits of both supine and prone position, an innovative methods was developed which we call it PERSonalized BReAst holder (PERSBRA) to help patients reduce radiation dose of heart and LAD form WBI. .

without PERSBRA **with PERSBRA**



dose ↓ 28%
dose ↓ 31%
dose ↓ 32%

Step1
Acquire the breast contour



Step2
Make PERSBRA

Step3
Wear PERSBRA
(for Best Cardiac Sparing)