



Photodisc/Getty

Isolated local regional recurrence (ILRR) of breast cancer is often associated with a poor prognosis and a high risk of distant metastasis. To reduce the risk of further relapses and death, the recently published results from the CALOR trial recommend the use of adjuvant chemotherapy for those patients with breast cancer who have had complete resection of ILRR tumours

Stefan Aebi, one of the CALOR investigators, explains that “CALOR was a simple randomized clinical trial with two treatment arms, one with chemotherapy, the other without.” All patients in the trial had local therapy consisting of surgery and radiation therapy; they also received endocrine therapy if the tumours expressed oestrogen receptor (ER) or progesterone receptor (PR), and were offered HER2-directed therapy as required. He continues, “CALOR was pragmatic in the sense that oncologists could use any type of chemotherapy they considered useful based on prior therapies and on individual patient factors.”

This pragmatic and individualized approach was necessary as several previous randomized trials had been closed prematurely owing to a low rate of patients accrual. The primary end point of this study was disease-free survival (DFS). The CALOR trial accrued 162 patients; 85 were randomly assigned to receive chemotherapy and 77 were did not receive chemotherapy.

The 5-year DFS was 69% in the chemotherapy group compared with 57% in the no-chemotherapy group. Adjuvant chemotherapy also resulted in an improved overall

survival (at 5 years) of 88% versus 76% in the untreated group.

“Chemotherapy does reduce the probability of further relapses in patients with isolated locoregional recurrences. This is particularly true for patients with ER-negative ILRR,” says Aebi. He continues, “however, the hazard ratio of survival favoured chemotherapy in patients independent of ER expression. Thus, the value of chemotherapy is less certain, but not excluded in patients with ER-positive ILRR.”

The results of this trial on the treatment of ILRR are in agreement with the efficacy of chemotherapy in reducing the risk of recurrence after primary breast cancer. The presence of genomic signature as well as mutations in specific genes constitutes an increasingly important factor in the treatment algorithm of breast cancer, and it could also aid in ILRR decision management.

Aebi emphasizes future research plans: “We are trying to find means to analyse molecular properties of the ILRR tissue samples of the trial to better understand who might profit from chemotherapy.” Importantly, this study design can help address the efficacy of chemotherapy in different settings. According to Aebi, similar trials could help to establish “whether patients with completely resected distant metastases of breast cancer should receive chemotherapy before further disease progression.”

Alessia Errico

Original article Aebi, S. *et al.* Chemotherapy for isolated locoregional recurrence of breast cancer (CALOR): a randomised trial. *Lancet Oncol.* doi:10.1016/S1470-2045(13)70589-8