

## **P241 Usefulness of the 21-gene assay to guide adjuvant chemotherapy decision-making: Geneva experience**

### Poster Abstracts II

---

A. Bodmer A. Hugli, S. Diebold Berger, L. Favet, M. Guetty Alberto, B. Exquis Medical Oncology, Geneva University Hospital, Geneva, Switzerland; Membre du réseau SONGE, Geneva, Switzerland; Laboratory Weintraub Viollier, Geneva, Switzerland

**Goals:** To evaluate the impact of Oncotype DX recurrence score (RS) on recommendation for adjuvant chemotherapy in estrogen-receptor positive (ER+), HER2 negative, early breast cancer (EBC) with (N+) or without (N0) minimal lymph node involvement.

**Methods:** Local prospective observational study, in which Oncotype DX™ was considered for pre and postmenopausal patients with luminal A/B EBC. Patients had to be considered at intermediate risk of recurrence, with favourable prognostic factors combined with at least one of the following unfavourable characteristics: tumor size (T) >2cm, tumor grading (G) 2 or 3, Ki67 ≥20% or presence of N+. This access program was open to all Geneva medical oncologists or breast surgeons. An application form with patient clinical and pathological data and initial treatment recommendation had to be sent to a panel of breast cancer specialists, consisting of 4 medical oncologists and one pathologist. The panel was asked to evaluate the recurrence risk and validate or not the Oncotype DX™ indication. Therapeutic decisions were compared between pre and post RS: the percentage of chemotherapy (CT) was compared using a Mc Nemar test. This comparison was stratified by histology, T, N, PR, Ki67 and RS. The differences in percentage of CT between pre and post were assessed with a 95% confidence using exact method and accounting for repeated measurement.

**Results:** Oncotype DX™ was performed in 60 patients. On the basis of the RS, 31 (51.7%), 24 (40%) and 5 (8.3%) tumours were classified as low, intermediate and high risk of recurrence. Before knowledge of RS, adjuvant CT was recommended by medical oncologist in 38 of 60 patients (63.3%), in 17 of 31 (54.8%), 17 of 24 (70.8%) and 4 of 5 (80.0%) patients with respectively low, intermediate and high RS. Initial treatment recommendation was revised in 28 (46.7%) patients after knowledge of the RS. The shift was predominantly from adjuvant combined chemo-endocrine (CTHT) to endocrine therapy (HT) alone (25/28 89.2%). Among the 38 recommended CT in pre-test, 25 have been avoided (25/38 65.8%), but for three patients (13.6%) the treatment plan post-test changed with an initial HT recommendation to a combined CTHT. After RS result, adjuvant CT was required for 16 patients, including 13 for which CT was already proposed in pre-test. The difference between CT recommendation in pre (63.3%) and in post-test (26.7%) was statistically significant ( $p=0.0001$ ). The overall reduction of recommended adjuvant CT after the RS result is 57.9% (22/38).

**Conclusion:** Our results confirm that RS has an impact on physicians' adjuvant decision-making in N0/N+ ER+ EBC, in 46.7% of time, with mainly a reduction of chemotherapy use. These results,

although slightly higher, are congruent with other published data. However the small sample size of our cohort and the large heterogeneity of patients are a limitation. But this situation may reflect “daily life” in clinical practice.