Penn Medicine
Abramson Cancer Center

Medical Oncology

First Annual Review of Breast Cancer Highlights from 2020 International Oncology Meetings

HER-2 Positive Updates

Tracy S d'Entremont, MD
Clinical Assistant Professor of Medicine
Director of Oncology Services, Abramson Cancer Center at Valley Forge

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Abstract # 503

- **Chemotherapy (CT) de-escalation using an FDG-PET/CT (F-PET) and pathological response-adapted strategy in HER2[+] early breast cancer (EBC): PHERGain Trial.**

J Cortes, G Gebhart, M R Borrego, A Stradella, B Bermejo, S Escriva, L C Martinez, N Ribelles, N Martinez, C Albacar, A Prat, F Dalenc, K Khaldoun, P Schmid, M Colleoni, F Marme, N Afonso, M Sampayo-Cordero, J M Perez-Garcia, A Llombart-Cussac.

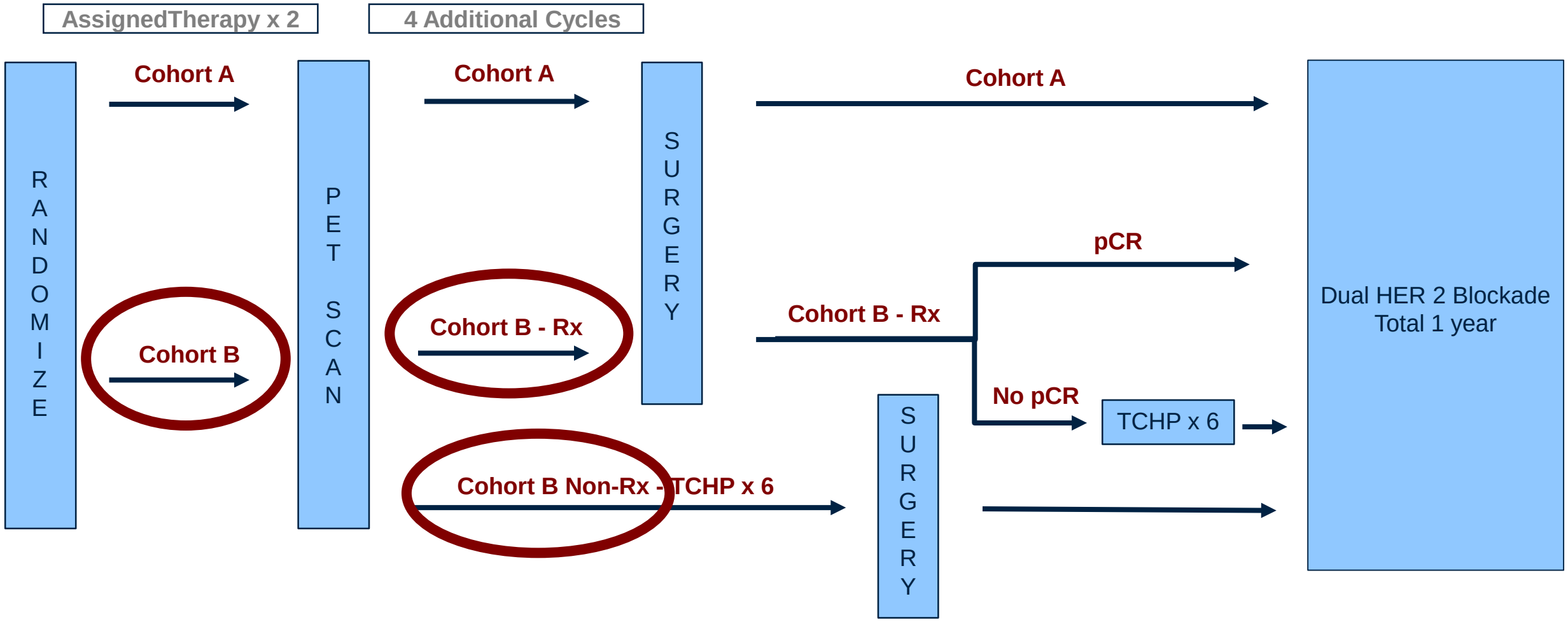
Study Design

- 376 Early Stage (I-III) Centrally Confirmed HER-2+ Br Ca pts randomized in 1:4 fashion to one of 2 cohorts

- **Cohort A**: Treated with Chemotherapy + dual HER2 blockade (TCHP) N = 71
- **Cohort B**: Treated with Endocrine therapy + dual HER2 blockade N = 285
  - Letrozole for post menopausal women
  - Tamoxifen for men and premenopausal women

- **Cohort C**: N=20; those pts identified as having possible sub-clinical metastases on initial imaging treated with TCHP x 6

PHERGain Trial



- Primary Endpoint:
  - pCR
- Secondary Endpoint:
  - 3 yr iDFS

- Median Age 50 yrs
- 49% LN+
- 67% HR+

Conclusions

- pCR 57.7% in chemotherapy arm vs 35.4% in non-chemotherapy arm (p <0.01)
- 79.6% of pts in non-chemotherapy arm were considered PET responders
- 37.9% of the PET responders went on to have pCR without any chemotherapy
- Among the PET non-responders, 25.9% went on to have pCR with addition of chemotherapy prior to surgery

Safety

- Grade 3 or higher adverse events was 58.8% for those in cohort A compared with 48.2% for PET non-responders and 3.1% in PET responders in cohort B.

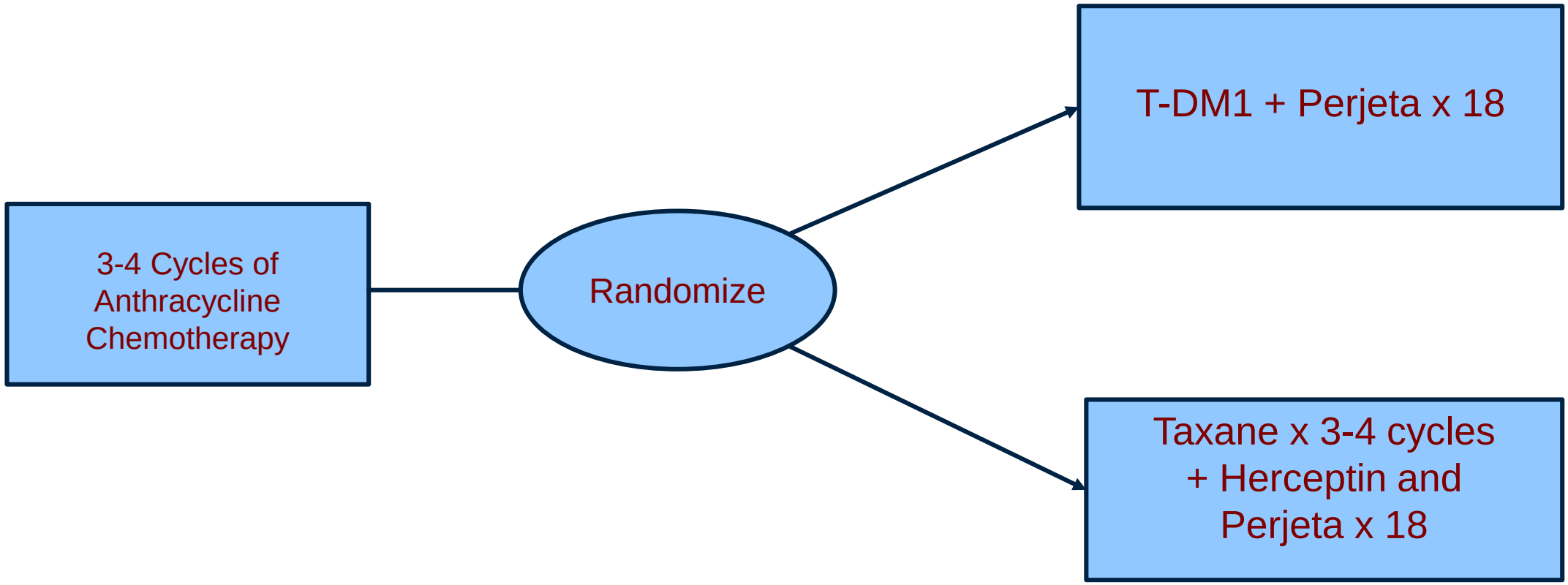
- Grade 3/4 febrile neutropenia were 20.6%, 17.9%, and 0% in these 3 respective groups.

#500 KAITLIN Trial

A Study of Trastuzumab Emtansine (Kadcyla) Plus Pertuzumab (Perjeta) Following Anthracyclines in Comparison With Trastuzumab (Herceptin) Plus Pertuzumab and a Taxane Following Anthracyclines as Adjuvant Therapy in Participants With Operable HER2-Positive Primary Breast Cancer

Nadia Harbeck, Seock-Ah Im, Carlos H. Barrios, Herve R. Bonnefoi, Julie Gralow, Masakazu Toi, Paul Ellis, Luca Gianni, Sandra M. Swain, Young-Hyuck Im, Michelino De Laurentiis, Zbigniew Nowecki, Jigna Shah, Thomas Boulet, Haiying Liu, Harrison Macharia, Peter Trask, Chunyan Song, Eric P. Winer, Ian E. Krop.

Study Design



Patient Population

- N = 1846
- 89% were LN +
- LN negative population had to be HR – and > 2cm

Endpoints

- Primary :
  - iDFS in Lymph Node + population
  - iDFS in ITT

- Secondary:
  - Overall Survival
  - Patient Reported Outcomes
  - Safety

Conclusions

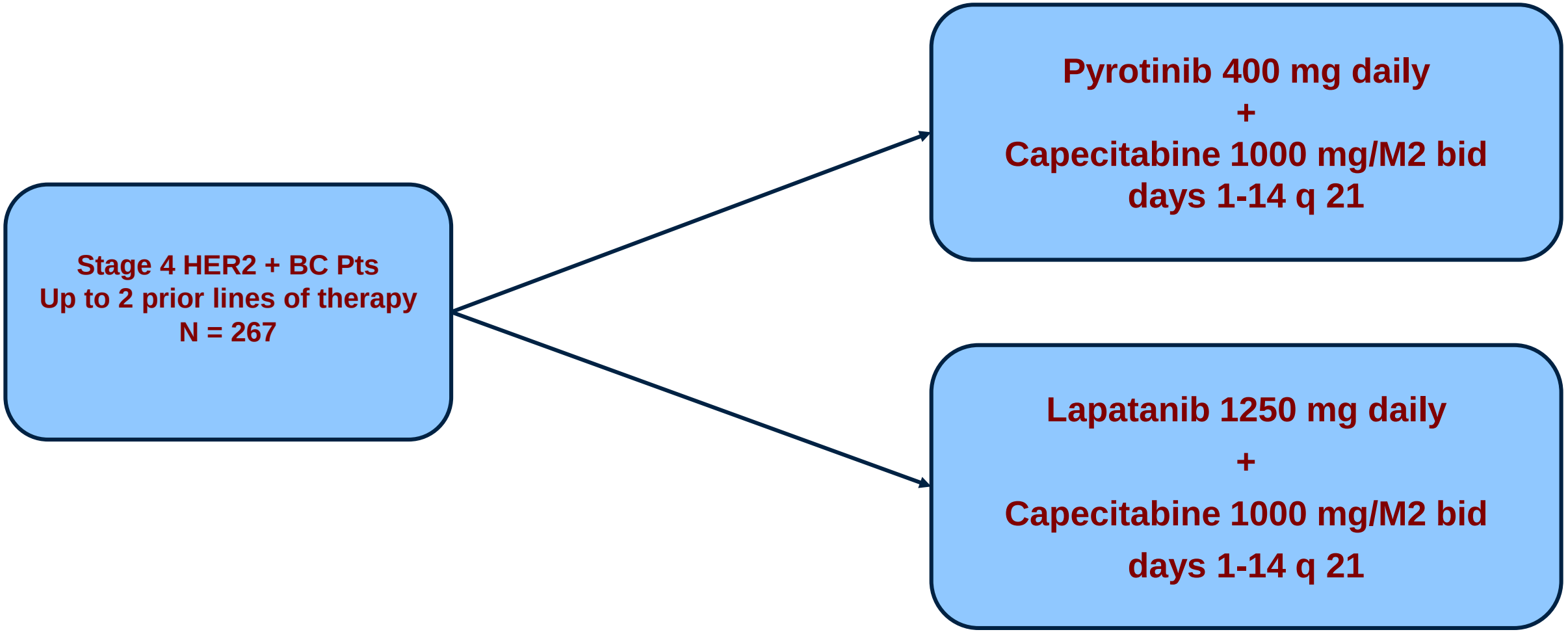
- Primary Endpoints were not reached
- No difference in iDFS (92.8% vs 94%)
- Similar rates of grade 3 AE (51.8% vs 55.4%)
- and SAEs (21.4 % vs 23.3%)
- But higher discontinuation rate secondary to AE in the study arm (26.8% vs 4%)

#1003 PHOEBE Trial

- **Pyrotinib Plus Capecitabine Versus Lapatinib Plus Capecitabine in Patients With HER2+ Metastatic Breast Cancer. (PHOEBE): A randomized phase III trial.**

Binghe Xu, Min Yan, Fei Ma, Xi-Chun Hu, Ji Feng Feng, Quchang Ouyang, Zhongsheng Tong, Huiping Li, Qingyuan Zhang, Tao Sun, Xian Wang, Yongmei Yin, Ying Cheng, Wei Li, Xiaoyu Zhu, Chunxia Chen, Jianjun Zou, The PHOEBE Group

Study Design



Endpoints

- Primary Endpoint PFS

Patient Population

- Many patients had no prior treatment for MBC (42% and 35%)
- Only 15% of patients had 2 prior lines of therapy

Conclusions

- PFS 12.5 mos in study arm vs 6.8 mos in control (HR = 0.39) p <0.0001
- ORR 67.2% vs 51.5%
- CR 5.2% vs 0.8%
- Duration of response 11.1 months vs 7 months
- 1-year OS rates of 91.3% and 77.4% among pyrotinib- and lapatinib-treated participants, respectively.

Safety

	Pyrotinib	Lapatinib
TRAE (at least grade 3)	57.5%	34.1%
Diarrhea	30.6%	8.3%
Dose Modification	47%	33.3%
Dose interruption	61.9%	48.5%
Treatment discontinuation	3%	2.3%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