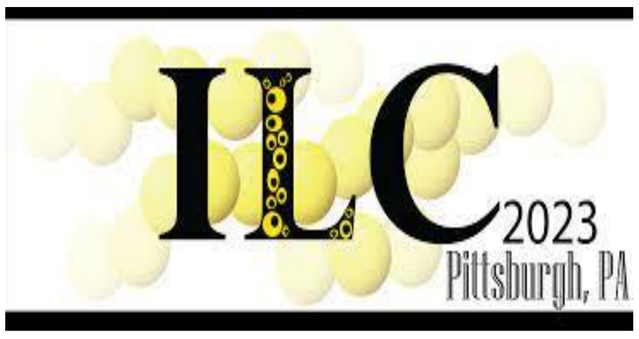

COMPARISON OF LONG-TERM OUTCOME BETWEEN CLINICALLY HIGH RISK LOBULAR VERSUS DUCTAL BREAST CANCER: A PROPENSITY SCORE MATCHED STUDY

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LAY ABSTRACT

OBJECTIVES

MonarchE trial's results have recently approved use of abemaciclib for adjuvant treatment of hormone receptor-positive, Her2-negative, node-positive breast cancer (BC) patients. With this study we would like to retrospectively evaluate the long-term prognosis of invasive lobular carcinoma (ILC) compared to invasive ductal carcinoma (IDC) selected with high-risk features, as defined by MonarchE trial criteria.

METHODOLOGIES

We selected 15,071 patients operated at the European Institute of Oncology for a first primary, non-metastatic, hormone receptor-positive, HER2-negative BC from 2000 to 2008: 11,981 (79.5%) patients presented an IDC, 1524 (10.1%) an ILC.

RESULTS

A total of 2,872 (21.3%) patients were selected as clinically high risk. The incidence of 10-years axillary lymph node and contralateral BC recurrences were higher in ILC vs IDC. No difference in disease free survival (DFS) and overall survival (OS) were found between the two groups at a median follow-up of 13.2 years. Specific features were associated with worse prognosis, such as younger age, large tumor, extensive axillary lymphnodes metastases.

CONCLUSIONS

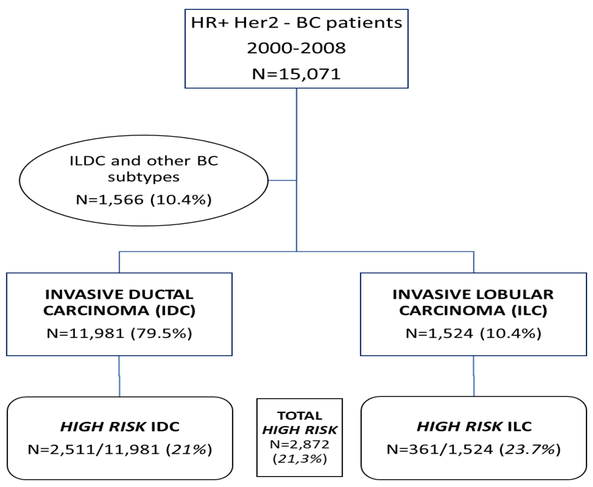
Our study demonstrated an approximately 21% rate of high-risk patients, potentially eligible for adjuvant abemaciclib treatment, suggesting that ILC patients might benefit most from this therapy.

BACKGROUND

After recent MonarchE trial approval of abemaciclib for adjuvant treatment of hormone receptor-positive, Her2-negative, node-positive breast cancer (BC), the frequency of BC patients potentially eligible for abemaciclib is unclear. There are conflicting data regarding the biological behavior and long-term outcomes between invasive lobular carcinoma (ILC) and invasive ductal carcinoma (IDC). With this study we would like to retrospectively evaluate the real-world data and long-term outcome of ILC compared to IDC selected with high-risk features, according to MonarchE trial selection criteria.

METHODS

15,071 patients operated at the European Institute of Oncology for a first primary, non-metastatic, hormone receptor-positive, HER2-negative BC from 2000 to 2008 were selected. 11,981 (79.5%) patients had an IDC, 1,524 (10.1%) an ILC. The remaining 1,566 patients (10.4%) had either combined ductal and lobular breast cancer or other histological breast cancer subtype. Applying the same eligibility criteria from the MonarchE study, we identified two *clinically high-risk* groups.



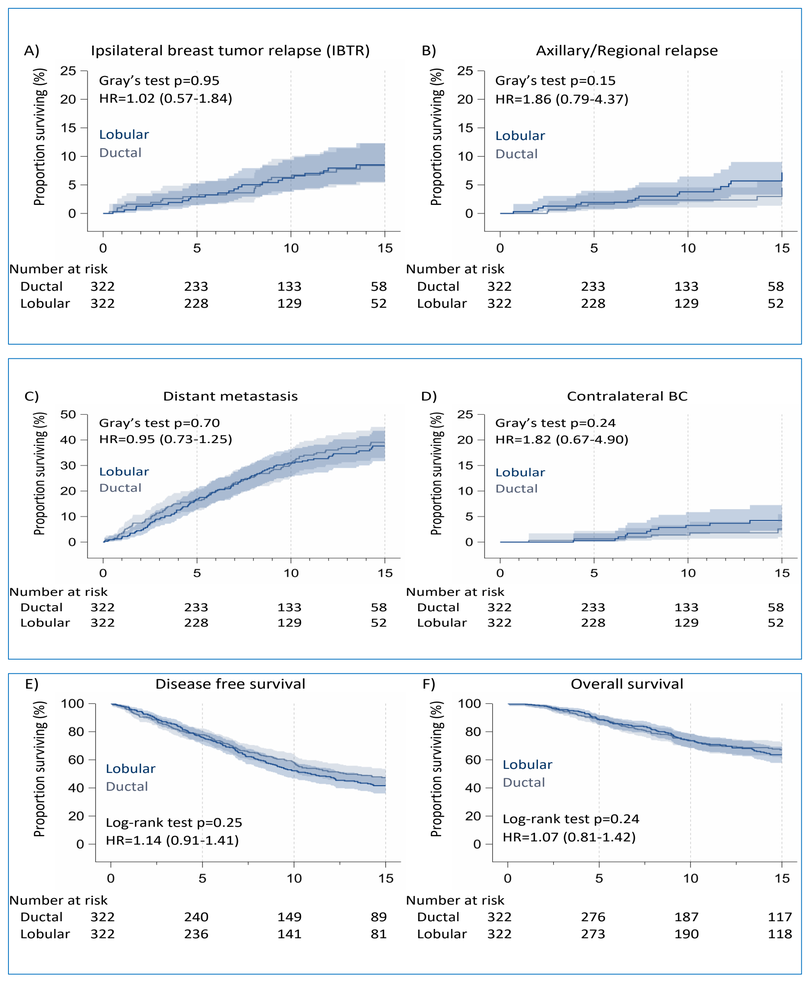
RESULTS

A total of 2,872 (21.3%) patients were selected as clinically high-risk, including 361/1,524 ILC (23.7%) and 2,511/11,981 IDC (21%).

322 high-risk ILC were matched with similar high-risk IDC.

The median follow-up of selected matched patients is 8.2 years for events and 13.2 years for survival.
In the matched set, more patients in the ILC cohort (n=17) than in the IDC cohort (n=10) developed axillary recurrence. The cumulative incidence of 10-years axillary lymph node recurrence was 3.8% in ILC (95% CI, 2.0%-6.5%) vs 2.4% (95% CI, 1.0%-4.6%) in IDC. Contralateral BC as well was found in 12 patients with ILC compared to 8 with IDC. The cumulative incidence of 10-years contralateral BC recurrence was 3.3% (95% CI, 1.6%-5.9%) in the ILC group vs 1.4% (95% CI, 0.5%-3.3%) in the IDC group.

Disease free survival (DFS) (log-rank P = 0.25) and overall survival (OS) (log-rank P = 0.24) were not statistically significantly different between the two histotype groups. At multivariate analysis, stratified for specific clinical features, age < 35 years, pT2-3, axillary involvement with more than 10 positive axillary nodes were found to be predictors of unfavorable DFS and OS in the overall high-risk population.



CONCLUSIONS

Our real-word data reinforced the concept that the treatment of hormonal-receptor positive Her2 negative ILC patients with specific clinical and pathological parameters of high prognostic risk, would require a multidisciplinary and individualized management strategy and should not differ from that of IDC patients, selected with the same MonarchE criteria. Indeed, our results demonstrated long-term concordance rates by histological subtype, underlining the value of peculiar high-risk clinical and pathological features, compared to the histological type itself, which would not appear to significantly influence the prognostic course of such patients. These data reported an approximately 21% rate of clinically high-risk patients and would suggest that the globally approved adjuvant treatment with abemaciclib on both high-risk BC groups might have a more positive benefit-risk in ILC.