

BREAST CANCER

BEATRICE bevacizumab trial—every cloud has a silver lining

No specific targeted therapy is available for triple-negative breast cancer (TNBC), which is associated with a particularly poor prognosis. Data from trials assessing bevacizumab in patients with advanced-stage disease indicate that it is just as likely to benefit patients with TNBC as other breast cancer subtypes. Moreover, there is a strong biological rationale for assessing bevacizumab in TNBC because these tumours are associated with high levels of VEGF and, therefore, are a good candidate to be treated with this approach.

Against this backdrop, David Cameron and colleagues conducted the BEATRICE trial to assess if adding bevacizumab to standard adjuvant chemotherapy would benefit patients with TNBC. In this multinational, open-label, randomized phase III trial, patients with operable primary invasive TNBC were randomly assigned to receive a minimum of four cycles of chemotherapy alone or with bevacizumab (5 mg/kg every week) for 1 year. The primary end point was invasive

disease-free survival (IDFS). In total, 1,290 patients were treated with chemotherapy and 1,301 received the combination. No significant difference between the two groups was observed in terms of IDFS. Furthermore, there was a slight increase in severe cardiac events in patients receiving bevacizumab, although this was only observed in patients treated with anthracycline-based chemotherapy.

So, what positives can we take from this negative trial? As Cameron points out, “the outcome for TNBC was quite a bit better than anticipated, which is different to what the literature based on historical series had suggested.” The BEATRICE trial also showed evidence of a predictive effect of plasma VEGFR-2 levels and improved outcome, which provides hope of a possible predictive marker. In terms of future plans, Cameron remarks “we are waiting for more event data to confirm the findings, and are doing exploratory analyses of various biomarkers to see whether there is a strong indication of a subgroup that does benefit.”



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In an accompanying commentary, Cortes and Perez-Garcia point out that, in general, tumours cannot grow beyond 2 mm without developing a vascular supply, and since micrometastases following surgery are usually smaller, they suggest that longer periods of bevacizumab treatment might further improve outcomes.

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Original article Cameron, D. *et al.* Adjuvant bevacizumab-containing therapy in triple-negative breast cancer (BEATRICE): primary results of a randomised, phase 3 trial. *Lancet Oncol.* doi:10.1016/S1470-2045(13)70335-8