Article details

Title of article
EMERALD: phase 3 trial of elacestrant (RAD1901) versus endocrine therapy for previously-treated ER+ advanced breast cancer

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Trial registration number
NCT03778931; EudraCT 2018-002990-24

Primary objectives/rationale

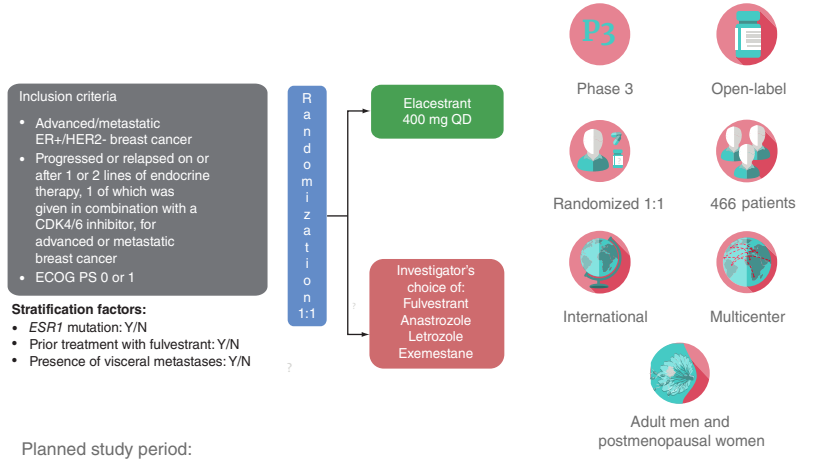
Primary objective
Compare PFS between elacestrant and SoC groups for all patients (tumors with *ESR1*-mutation [*ESR1*-mut] and tumors with *ESR1*-mutation not detected [*ESR1*-mut-nd]) and patients with tumors that harbor an *ESR1* mutation

Rationale
Elacestrant is a novel oral SERD that has shown efficacy in Phase 1 studies in postmenopausal women with advanced or metastatic ER+/HER2- breast cancer, including those who had progressed on a CDK4/6 inhibitor and those whose tumors harbored *ESR1* mutation

Glossary

AI: Aromatase inhibitor; CBR: Clinical benefit rate; CDK: Cyclin-dependent kinase; CR: Complete response; ctDNA: Circulating tumor DNA; CT: Computed tomography; DoR: Duration of response; ER+: Estrogen receptor positive; *ESR1*: Estrogen receptor gene alpha; *ESR1*-mut: *ESR1* gene mutation; *ESR1*-mut-nd: No *ESR1* gene mutation detected (includes *ESR1* wild type as well as mutations below limit of detection of the assay); HER2: Human epidermal growth factor receptor 2; IRC: Imaging review committee; MRI: Magnetic resonance imaging; ORR: Objective response rate; OS: Overall survival; PFS: Progression-free survival; PR: Partial response; PRO: Patient-reported outcomes; RECIST: Response Evaluation Criteria in Solid Tumors; SD: Stable disease; SoC: Standard of care

Study design and treatment including planned sample size, planned study period and study procedures



Planned study period:
November 2018 to August 2022 (~ 42-45 months)

Study design:
Randomized, active-controlled, open-label Phase 3 study in patients with advanced or metastatic ER+/HER2-breast cancer

Study procedures:
Tumor assessments via CT/MRI of chest, abdomen, pelvis, and clinically indicated sites of disease will be performed every 8 weeks and evaluated according to RECIST v1.1. For patients with bone lesions identified at baseline, a radionuclide bone scan or whole body MRI us to be performed every 24 weeks. Elacestrant plasma concentrations will be analyzed and ctDNA analysis will be performed. Patient-reported outcomes will be evaluated.

Outcome measures/end points

Primary end point
Blinded IRC-assessed PFS in *ESR1*-mut patients and in all patients (*ESR1*-mut and *ESR1*-mut-nd)

Secondary end points
OS in *ESR1*-mut patients and in all patients

Additional secondary end points
Other secondary endpoints analyzed in *ESR1*-mut and all patients are IRC-assessed ORR, DoR, and CBR (defined as the percentage of patients who have achieved either a confirmed CR or PR, or stable disease at ≥ 24 weeks from randomization); investigator assessed PFS, ORR, DoR, and CBR; safety and tolerability, elacestrant pharmacokinetics, and PRO measures