

Plain-Language Summary for Patients and the Public

Can trastuzumab deruxtecan help when breast cancer spreads to the brain?

Breast cancer that has spread to the brain can be difficult to treat, and people with active brain tumours are often excluded from studies. The DEBBRAH study tested trastuzumab deruxtecan, or T-DXd, in 21 women with HER2-positive advanced breast cancer and stable, untreated or growing brain tumours. Everyone received T-DXd every three weeks; there was no comparison group. After 16 weeks, 7 of 8 women with stable brain tumours had no worsening of their cancer. Brain tumours shrank in 2 of 4 women with untreated tumours and 4 of 9 whose tumours had grown after earlier treatment. Common side effects included tiredness, nausea, low white blood cell counts and constipation. Two women developed mild lung inflammation. Quality of life did not clearly worsen over 24 weeks. These early results are promising, but the study was small and follow-up was short, so larger studies are needed.

Summaries are from the following article:

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Scientific Literature Summary for a Medical/Scientific Audience

Trastuzumab Deruxtecan Shows Encouraging Intracranial Activity in HER2-Positive Advanced Breast Cancer: Results from the DEBBRAH Trial

Brain metastases affect 30%–50% of patients with HER2-positive advanced breast cancer, but active intracranial disease is often excluded from trials. The multicentre, single-arm, open-label phase II DEBBRAH study assessed trastuzumab deruxtecan (T-DXd) in pretreated patients with stable, untreated, or progressing brain metastases. Twenty-one patients received T-DXd 5.4 mg/kg every 21 days: eight had non-progressing metastases after local therapy, four had asymptomatic untreated metastases, and nine had progression after local therapy. The 16-week progression-free survival rate was 87.5% (95% CI, 47.3–99.7) in the non-progressing cohort. Intracranial objective response rates were 50.0% and 44.4% in the untreated and progressing cohorts, respectively, and 46.2% (95% CI, 19.2–74.9) across patients with active brain metastases. Grade 3–4 adverse events occurred in 23.8%, mainly neutropenia and fatigue; two patients developed grade 1 interstitial lung disease/pneumonitis. Global quality of life did not significantly deteriorate at 24 weeks. Despite the small, nonrandomized sample and short follow-up, T-DXd showed encouraging intracranial activity and manageable toxicity, supporting evaluation in larger studies.