

A phase 2 clinical trial of adjuvant ado-trastuzumab emtansine (T-DM1) for patients with HER2-positive salivary gland cancer.

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Background: Salivary gland carcinomas (SGCs) represent a rare, but unique group of histologically and molecularly distinct head and neck cancers. Despite aggressive locoregional management with surgery and adjuvant (chemo)radiation, distant metastatic spread is not infrequent, particularly among high-risk subtypes like salivary duct carcinoma. Strong surface expression of HER2 has been observed in 60–80% of high-risk SGCs. This is the first clinical trial exploring the early addition of concurrent and adjuvant HER2-directed therapy to improve both locoregional and distant disease control rates in a HER2-overexpressing high-risk SGC population. **Methods:** This phase 2 open-label, clinical trial (NCT04620187) is enrolling patients (pts) with newly diagnosed SGC of any histology arising in the head and neck whose tumor overexpresses HER2 (2–3+ by IHC expression or *ERBB2* amplification/select mutations) treated with upfront definitive surgery. Pts must have adequate organ and cardiac function, with stage II–IVB (AJCC 2017 8th ed.) disease (stage II requires positive margins). Enrollment following surgery is permitted. Once registered post-op, adjuvant T-DM1 (3.6 mg/kg IV every 21-days) starts within 3–7 weeks of surgery prior to radiation (RT). Four to 8 weeks post-op pts receive standard RT (photon or particle) with concurrent weekly cisplatin (40 mg/m²) for 6-weeks. T-DM1 continues every 3-weeks during RT and up to 1-year following surgery. The primary endpoint is 2-year disease-free survival (DFS). Secondary endpoints include safety and tolerability, overall survival, distant metastatic-free survival, and correlation between HER2 expression and outcomes. We hypothesize that treatment with adjuvant T-DM1 will improve historical 2-year DFS from 60 to 72%. When 24 DFS events are observed among N=47 pts who are eligible and receive protocol treatment, the design has 80% power to detect a 35% reduction in the DFS hazard to 0.1660 (using a one-sided 10% type I error rate; Wald's test). The study opened to accrual in October 2020 and is now accruing at four academic medical centers throughout the U.S. Sixteen of 47 planned subjects have been enrolled as of December 2024. Clinical trial information: NCT04620187. Research Sponsor: Genentech.