Introduction: Paget’s disease is a rare condition occurring in the papillary-areolar complex, and it is associated with carcinoma, representing 0.5%–5% of all types of Breast Cancer (BC). The uniqueness of the case is related by the BC diagnosis during pregnancy, besides the COVID-19 pandemic context and its consequences. Case report: A 37-year-old woman identified a first-trimester pregnancy during preoperative exams of a nipple biopsy, which confirmed Paget’s disease. Due to the pregnancy and considering the COVID-19 pandemic, an expectant conduct follow-up was settled. After eight weeks, the patient at 26-week gestational age referred a breast lump, and a core biopsy confirmed invasive ductal carcinoma. She started treatment with neoadjuvant chemotherapy. After three cycles, the therapy was interrupted because she presented clinically local progression. The interruption of treatment and the pregnancy resolution was made at 36 gestational weeks. Posteriorly, the surgical approach involved mastectomy and axillary lymph nodes dissection, followed by adjuvant chemotherapy.