

Etonogestrel contraceptive implant uptake and safety among solid organ transplant recipients

Abstract

Objectives: To determine the safety of etonogestrel contraceptive implant use among reproductive-age women who are solid organ transplant recipients.

Study design: We conducted a retrospective cohort study with matching of reproductive-age women (14-45 years) who were solid organ transplant recipients and received care at a tertiary medical center in Denver, Colorado between 2011 and 2019. We identified cases who used an etonogestrel contraceptive implant post-transplant and then matched controls (no hormonal contraceptive use) in a 1:1 ratio according to age, transplant type, and institution. We compared pregnancy patterns, post-transplant infections, immunosuppressant therapy adjustments, and graft complications between cases and controls. We also evaluated implant-related side effect profiles and continuation rates among cases only.

Results: We identified 24 cases and 24 matched controls. When compared to age and transplant organ-matched controls, contraceptive implant users were not at increased risk for adverse transplant-related outcomes. Graft rejection was the most common transplant-related complication in both groups (n = 11, 45.8% cases; n = 10, 41.7% controls). Additionally, outcomes concerning pregnancies, infections and immunosuppressant therapy changes showed no statistically significant difference between either group.

Conclusions: This study provides the first data that the etonogestrel contraceptive implant is likely a safe contraceptive option for reproductive-age women who are solid organ transplant recipients. Given the solid organ transplant recommendations to avoid pregnancy during the first 1 to 2 years post-transplant, healthcare providers should continue to counsel solid organ transplant recipients at risk of pregnancy on the etonogestrel contraceptive implant as an effective and safe method of pregnancy prevention.

Implications: Reproductive age women who are solid organ transplant recipients face additional health risks with unintended pregnancies. The etonogestrel contraceptive implant remains a safe and effective method of contraception for this specific population, with no increase in graft-related complications among contraceptive implant users.

Keywords: Contraceptive implant; Etonogestrel; Graft complications; Solid organ transplant; Transplant recipients.