# OVARIAN STIMULATION AND RETRIEVAL OUTCOMES IN GENDER DIVERSE PATIENTS MAINTAINED ON TESTOSTERONE: A CASE SERIES

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**Background:** Fertility preservation is an important component of care that all transgender individuals should be counseled on (1,2). Currently, patients who present after initiation of testosterone, are often counselled to discontinue testosterone prior to controlled ovarian hyperstimulation (COS) (3). Testosterone supplementation has been used in low doses in experimental fertility treatment of patients with diminished ovarian reserve, and elevated endogenous testosterone is a hallmark of polycystic ovarian syndrome. However, typical dosing of testosterone in transgender individuals ranges from 50-100 mg testosterone cypionate or equivalent (4), with a goal serum range being individualized to the patient, but generally aiming for the male range (5), and so it is difficult to extrapolate from either the DOR or PCOS population given the androgen levels are so much higher in transgender individuals.

**Objective:** This study aimed to report on three cases of gender diverse patients who continued testosterone therapy throughout COS for fertility preservation

**Materials and methods:** This was a retrospective case series of patients who presented for fertility preserving COS in a university affiliated fertility clinic, and continued gender-affirming testosterone therapy up until or during the COS protocol. The primary outcome measures were number of oocytes retrieved, number of mature oocytes retrieved, number of embryos created, and total gonadotrophin dose required during stimulation.

**Result(s):** The average age of patients in this series was 29, with an average BMI 31 kg/m$^2$. Mean serum testosterone prior to starting stimulation was 359 ng/dL. The average AMH and AFC levels were 1.2ng/ml and 12 respectively, and mean number of mature MII oocytes vitrified per cycle started was 16.

**Conclusion(s):** This is the largest case series of patients who continue testosterone during COS, with the widest range of testosterone dosing reported. These findings are reassuring for patients and indicate that proceeding with a stimulation cycle without a testosterone washout period, or continuing testosterone during cycle, may be a reasonable option, increasing the accessibility of this treatment for gender diverse and transgender individuals who wish to continue testosterone.

**Financial support:** There was no funding provided for this research

**References:**

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