SUN-B1-T5: SAFETY OF BICALUTAMIDE AS ANTI-ANDROGENIC THERAPY IN GENDER AFFIRMING CARE FOR ADOLESCENTS AND YOUNG ADULTS: A RETROSPECTIVE CHART REVIEW

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Introduction/Background: Gender-affirming medical intervention for adolescents and young adults with functioning testes and a transfeminine gender identity often involves the use of both a testosterone-blocking medication and feminizing hormone. The most commonly used testosterone-blocking medications in the United States are gonadotropin releasing hormone (GnRH) agonists and spironolactone. While GnRH agonists are frequently preferred in younger patients, they are not widely available in oral preparations and their use is often limited by variable insurance coverage and high out-of-pocket costs. Spironolactone is a low-cost alternative that is available to be taken by mouth, however, its side effects (particularly hyperkalemia, polyuria, and hypotension) can be bothersome or unacceptable for some patients.

Bicalutamide is a potent nonsteroidal peripheral androgen receptor blocker that is FDA-approved for the treatment of prostate cancer and is available for oral administration. Bicalutamide has also been used off-label in younger patients for the treatment of some forms of precocious puberty in cisgender males and for hirsutism in patients with polycystic ovarian syndrome. Increases in liver enzymes with bicalutamide use in the treatment of prostate cancer are uncommon and are usually transient and asymptomatic. Two small retrospective chart review studies involving transgender youth (N=23 and N=5) have shown clinical efficacy of bicalutamide with no adverse effects. However, many practitioners have been hesitant to use this medication given the potential side effect of liver toxicity and the lack of larger studies providing safety data.

Specific Aim: AIM 1: Describe the demographics of adolescents and young adults who were prescribed bicalutamide for the treatment of gender dysphoria at a large gender-affirming care specialty clinic during the study period.
AIM 2: Assess the incidence of hepatotoxicity and other side effects in patients taking bicalutamide for the treatment of gender dysphoria.

Materials and Methods: A retrospective chart review was conducted for patients prescribed bicalutamide within a large academic gender-affirming care clinic from January 2018 through April 2023. Data collected includes demographic information, age of initial prescription of bicalutamide, stage of pubertal development at initiation, duration of bicalutamide use, liver function testing before and during treatment, side effects including reported liver toxicity.

Results: During the study period, 426 adolescents and young adults were prescribed bicalutamide for the purposes of androgen blockade in the treatment of gender dysphoria. Results of the chart review are currently pending, but per provider report, increased liver enzymes have only been known to occur in one patient during this time and resolved after medication discontinuation with no lasting sequelae.

Conclusion: Healthcare providers within one large academic gender-affirming care clinic have used bicalutamide for testosterone blockade in 426 adolescent and young adult patients since 2018 with no major complications. This study will add significant evidence for the safety of this medication as an alternative approach to anti-androgenic therapy in the treatment of gender dysphoria.

Mini Symp: Community Engagement

SUN-C1-M: GROWING WHAT YOU SOW: GENDER AFFIRMING COMPETENT CARE WITHOUT SILOS IN FRESNO, CALIFORNIA