

Abstract citation ID: qdae001.364**(379) THE EFFECT OF 5- α REDUCTASE INHIBITOR ON MALE REPRODUCTIVE FUNCTION***S. Song¹, T.H. Lee¹, D.S. Kim¹**¹CHA Gangnam Medical Center, CHA University*

Introduction: 5 α -reductase inhibitor (5-ARI) such as finasteride or dutasteride has been approved to treat benign prostatic hyperplasia and androgenic alopecia (male pattern hair loss), which blocks the conversion of testosterone to dihydrotestosterone. With expanding usage among young men, concerns exist regarding potential negative influence of this hormonal agent on male reproductive function.

Objective: We investigated the effect of 5-ARI usage on the sexual and reproductive function in men of reproductive age.

Methods: This study included healthy males of reproductive age who visited single fertility center. We compared the sexual and reproductive function between those who take 5-ARI for androgenic alopecia (n=40) and no medication group (n=48). Erectile function was surveyed using IIEF-5 questionnaire. In addition to basic fertility evaluation, semen parameters and serum reproductive hormone were compared between groups. Semen samples were collected with abstinence period of more than 48 hours. Patients with chronic medical disease, previous scrotal surgery or exposure to gonadotoxic agents were excluded.

Results: The mean duration of 5-ARI intake was 54.2 months and there was no significant difference in IIEF-5 score between the two groups (5-ARI group vs. control group). There was no significant difference in semen parameters; sperm concentration ($[101.5 \pm 68.7] \times 10^6/\text{mL}$ vs. $[97.5 \pm 65.5] \times 10^6/\text{mL}$, $p=0.783$), sperm motility ($39.8\% \pm 9.0\%$ vs. $42.0\% \pm 8.5\%$, $p=0.224$), sperm progressive motility ($37.4\% \pm 9.4\%$ vs. $39.0\% \pm 9.0\%$, $p=0.404$), sperm morphology (normal forms: $4.5\% \pm 1.4\%$ vs. $4.8\% \pm 1.1\%$, $p=0.308$), except smaller semen volume in 5-ARI group (2.3 ± 0.9 mL vs. 3.4 ± 1.4 mL, $p<0.001$). Serum testosterone and FSH were higher in 5-ARI group. Two patients experienced adverse events while taking 5-ARI.

Conclusions: Our study suggests that administration of 5-ARI does not significantly affect male reproductive function. However, a prudent approach is recommended in men with oligospermia or ejaculatory dysfunction.

Disclosure: No.