Consecutive Lynestrenol and cross-sex hormone treatment in female to male transgender adolescents: a retrospective analysis

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Background

Gender dysphoria (GD) is defined as a discrepancy between the expressed or experienced gender and the sex assigned at birth, which causes distress or impairment in important areas of functioning. To reduce this distress, two types of treatment are available in adolescents with persistent GD depending on the pubertal development at diagnosis:

- Early pubertal diagnosis: gonadotropin releasing hormone analogues (GnRHa) for full suppression of gonadotropins and bodily pubertal changes.
- Mid- or late pubertal diagnosis: pro-androgenic progestins to weaken the effects of endogenous hormones, e.g., suppress menstruation.

Due to the high costs of GnRHa and their inability to reverse secondary sexual characteristics, pro-androgenic progestins are a valuable alternative in mid- or late puberty when GnRHa are not reimbursed. However, no studies exist on the eventual pro-androgenic effects and side effects of progestins.

Methods

To examine the clinical and biochemical effects (anthropometry, safety parameters, hormone levels) of lynestrenol monotherapy (L) 5 mg/d and in combination with testosterone esters (L+T), a retrospective analysis of clinical and biochemical data in 45 transgender boys was performed.

Disclosure: the authors have nothing to disclose.

Results

Mean treatment duration:
L: 12.6 months
L+T: 11.4 months

Antropometrics
Height start L: 166.9 cm,
Height start L+T: 167.8 cm

Side effects

- Metrorragia (variable intensity) • During L: 48.7% • During L+T: 25%
- Acne • During L: 25.6% • During L+T: 59.1%
- Headaches • Over entire course of treatment: 12.1%
- Hot flashes • Over entire course of treatment: 9.8%
- Fatigue • Over entire course of treatment: 8%

Additional hormones
Thyroid function: unaffected.
AMH: stable over the entire course.

Conclusions

Treatment with lynestrenol effectively decreases the estrogenic to androgenic ratio within six months of treatment. Its use is safe and cheap in late pubertal transgender boys. However, higher doses may be needed to induce total amenorrhea in many youngsters. Overall, we consider lynestrenol to be a valuable alternative for expensive GnRHa, especially when secondary sexual characteristics have fully developed.