Clinical Effectiveness of Bilateral Orchiectomy in Reducing Anti-Androgens in Transgender Females

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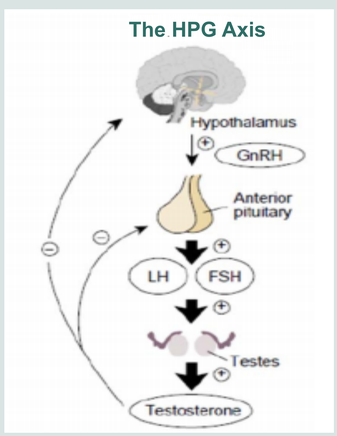
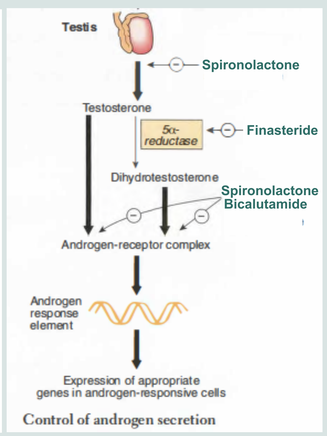
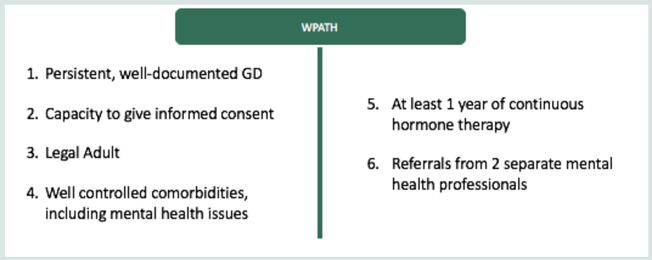
Introduction

- Transgender females often require anti-androgen medications in addition to estrogen supplementation
- The most common antiandrogen used in the US is spironolactone
- Bilateral Orchiectomy (BO) is an alternative means of androgen reduction
- Few reports detail actual changes in medications for patients undergoing BO







Methods

- Single institution, retrospective review
- 19 patients underwent BO
- All met WPATH criteria for BO
- Pre- and post-operative hormone regimen information available for 12

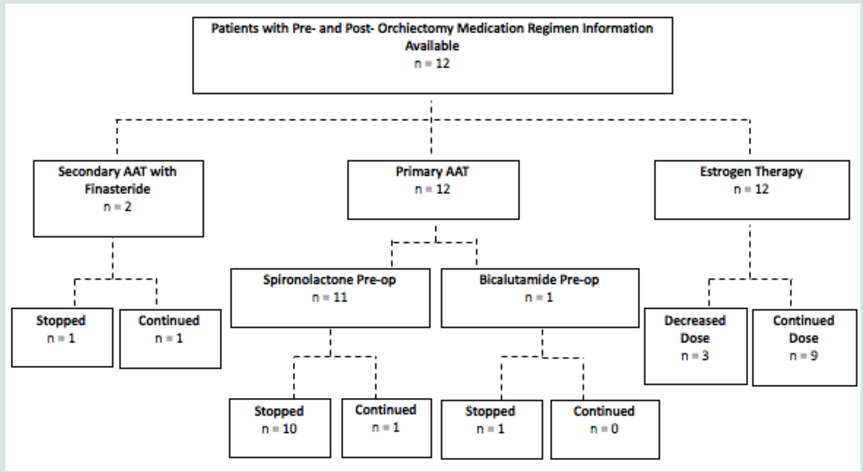
Patient Demographics of Transwomen Undergoing Orchiectomy

Age at Surgery	
Median (Range)	46 (30-65)
Race	
White	13 (81.3%)
Black	1 (6.3%)
Other	2 (12.5%)
Previous Children	
Yes	7 (43.8%)
No	9 (56.3%)
Months on Hormone Therapy	
Median (Range)	42.5 (1-306)
Provider Managing Hormones	
Endocrinology	7 (43.8%)
Gynecology	8 (50.0%)
Outside Provider	2 (12.5%)
Primary Anti-Androgen Therapy	
Spironolactone	14 (87.5%)
Bicalutamide	1 (6.3%)
Leuprolide	1 (6.3%)
5α-Reductase Inhibitor Use	
Yes	2 (12.5%)
No	14 (87.5%)

Changes in Hormone Medication Regimen Before and After Bilateral Orchiectomy*

Patient #	Pre-op AAT	Post-op AAT	Pre-op Estrogen	Post-op Estrogen
1	Spironolactone 200 mg PO	-	Estradiol cypionate 2 mg IM weekly	Estradiol cypionate 1.5 mg IM weekly†
2	Spironolactone 100 mg PO	-	Estradiol 4 mg PO	Estradiol 4 mg PO
3	Spironolactone 50 mg PO	-	Estradiol valerate 10 mg IM twice weekly	Estradiol valerate 10 mg IM twice weekly
4	Spironolactone 200 mg PO	-	Estradiol patch 0.1 mg twice weekly	Estradiol 3 mg PO
5	Spironolactone 200 mg PO Finasteride 5 mg PO	- Finasteride 5 mg PO	Estradiol 4 mg PO	Estradiol 4 mg PO
6	Spironolactone 100 mg PO	-	Estradiol 6 mg PO	Estradiol valerate 8 mg IM weekly
7	Spironolactone 100 mg PO Finasteride 5 mg PO	- -	Estradiol 6 mg PO	Estradiol 2 mg PO†
8	Spironolactone 100 mg PO	Spironolactone 100 mg PO	Estrogens conjugated 2.5 mg PO	Estradiol 4 mg PO
9	Spironolactone 300 mg PO	-	Estradiol 6 mg PO	Estradiol 4 mg PO†
10	Spironolactone 100 mg PO	-	Estradiol 1 mg PO	Estradiol 2 mg PO
11	Spironolactone 200 mg PO	-	Estradiol 6 mg PO	Estradiol 6 mg PO
12	Bicalutamide 12.5 mg PO	-	Estradiol valerate 5 mg IM weekly	Estradiol valerate 5 mg IM weekly

*Oral formulations are expressed as total daily dose
†Denotes decrease in estrogen dose



Results

- Median age at surgery was 46 years
- Median time on hormones prior to surgery was 42.5 months
- Pre-op: All 12 patients were taking anti-androgen medication
  - Post-op: 11 of 12 (92%) stopped their primary anti-androgen
- Pre-op: 2 patients were also treated with finasteride
  - Post-op, 1 (50%) of them had stopped it
- Post-op, 3 of 12 (25%) reduced their dose of exogenous estrogen

Conclusions

- Hormone use is common amongst transwomen seeking BO and duration of therapy may be years
- BO is an effective means of negating the need for ongoing androgen reducing medication
- A significant portion of patients may be able to reduce exogenous estrogen administration