

IS THE RECOMMENDED DUAL THERAPY FOR TRANSSEXUAL BOYS HARMLESS?

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INTRODUCTION/OBJECTIVE

The number of transsexual adolescents who request health care with advanced pubertal development is increasing. Guidelines recommend dual therapy, but the experience is limited and its possible impact on bone mineral density (BMD) and/or fertility is controversial.

Objective: To study the impact of dual therapy on BMD and Inhibin B in a group of transsexual male adolescents who initiate treatment with advanced pubertal development.

METHODOLOGY

Retrospective study of 16 male minors who initiated treatment with complete pubertal development. The variables included were: age, weight and height at baseline and at the last visit (calculated in SDS for age and assigned sex), Bone Mineral Density (GE HealthCare's LUNAR Densitometer; L1L4 and total body measured in g/cm² and calculated in SDS for age and assigned sex), vitamin D and Inhibin B determination as a marker of ovarian reserve (Enzyme Immunoassay; normal range 25-325 pg/ml). Exams were measured three times:

- 1. Basal**
- 2. On Triptorelin treatment:** mean duration 14±6 months (mean dose 60 µg/kg/4 weeks)
- 3. After Testosterone Cypionate association:** mean duration 13.2±8 months (mean dose 113±52 mg/4 weeks)

Statistical analysis with SPSS V25 software: Wilcoxon test.

RESULTS

	BASELINE	TRIPTORELIN	TESTOSTERONE	p		BASELINE	LAST VISIT	p
Age (year)	13.6±1.6	14.8±1.3	15.8±0.9	-	Age (year)	13.6±1.6	17.2±1.3	-
BMD L1L4 (g/cm ²)	1.12±0.18	1.14±0.16	1.12±0.14	ns	Vitamin D (ng/ml)	18.2±7.1	21.1±6.1	ns
BMD L1L4 (SDS)	0.5±1.3	0.26±1.5	- 0.37±0.94	0.002	Weight (k)	-	70.6±19.9	-
BMD total body (g/cm ²)	1.06±0.08	1.02±0.09	1.05±0.08	ns	Weight (SDS)	0.96±1.7	1.64±2.1	ns
BMD total body (SDS)	0.84±1.03	0.66±1.08	0.33±1.04	0.006	Height (cm)	-	163.6±10.1	-
Inhibin B (pg/ml)	32.6±37.5	14.4±15.7	31.0±29.2	ns	Height (SDS)	0.1±1.45	0.02±1.7	ns

CONCLUSIONS

Throughout the therapy the physiological increase in BMD (g/cm²) is not observed, but neither a significant decrease is seen. Inhibin B does not undergo relevant modifications. Long-term studies are required to ensure the safety of dual therapy.