

Supplementary Tables

Suppl. Table 1. Stages of growth and development based on testicular features.

Group	Nomenclature	Age	N	Testicular features
Fetal	G0	During gestation	3	Fetal Leydig Cells. Small primitive tubules.
Neonatal	G1	< 1 month	3	Fetal Leydig Cells. Immature seminiferous tubules
Infantile	G2	1 to 12 months	5	Postnatal activation of Leydig Cells. Immature seminiferous
Juvenile	G3	1 to 12 years	3	Absence of Leydig Cells. Immature seminiferous tubules
Pubertal	G4	12 to 14 years	6	Pubertal Leydig cells. Mature seminiferous tubules. Meiotic spermatocyte

Suppl. Table 2. Clinical information. CA: Chronological age in years. Tanner's stage of sexual development: PH, pubic hair; G, genitalia; B, breasts (bilateral). TV: testicular volume, R, right L: left. Reference serum values [1]: testosterone (T): 0.05-05 ng/mL; estradiol (E2) 5-10 pg/mL. Serum LH (U/L) reference values by age: P1: 0.78 ± 0.99, P2: 0.15 ± 0.17, P3: 0.13 ± 0.32. Serum FSH (U/L) by age: P1: 2.26 ± 0.9, P2: 0.9 ± 0.59, P3: 1.1 ± 0.82.

Patients (P)	CA (y)	PH	G	B	TV (cc)		T ng/ml	E ₂ pg/ml	LH U/L	FSH U/L
					R	L				
P1	6.7	3	3	2	2	9	13.1	21	<0.1	1.4
P2	1.6	3	3	1	25	1	11.8	61	0.41	0.54
P3	3.8	3	3	1	5-6	2	1.46	<9	<0.1	0.42
P4	9	3	3	1	6	2	0.6	<9	2.1	1.4

Suppl. Table 3. RT-qPCR primers.

	<u>Forward</u>	<u>Reverse</u>
<u>CYP19 (rat)</u>	<u>5'- GAG AAA CTG GAA</u> <u>GAC TGT ATG GAT -3'</u>	<u>5'- ACT GAT TCA CGT</u> <u>TCT CCT TTG TCA -3'</u>
<u>HDC (rat)</u>	<u>5'-TAG GTG ACG GGA</u> <u>GTC TTC AAT C-3'</u>	<u>5'- ATG GGC TTA CTT</u> <u>CCC TCA AGA T -3'</u>
<u>GAPDH</u>	<u>5'- GGG TGT GAA CCA</u> <u>CGA GAA AT -3'</u>	<u>5'- ACT GTG GTC ATG</u> <u>AGC CCT TC -3'</u>