

**Supplementary Table 1b: Embryological and clinical outcomes of patients with Y-chromosome microdeletions (TESE-C)**

TESE-C	AZFa	AZFb	AZFc	P <sup>a</sup>
Patients (n)	1 + (3)	(2)	3 + (14)	4 + (19)
Cycles (n)	10	4	29	43
COC (n, mean, range)	52 (5.2±1.9) (3–8)	18 (4.5±2.9) (1–9)	245 (8.4±3.2) (2–14)	b, c a=0.653; b=0.042; c=0.038
MII (n, mean, range)	47 (4.7±1.8) (3–8)	11 (2.75±1.5) (1–5)	216 (7.4±3.4) (1–14)	c a=0.212; b=0.081; c=0.011
Maturation rate (MII/COC)	90.4	61.1	88.2	a, c a=0.005; b=0.650; c=0.001
2PN (n, mean, range)	30 (3±1.6) (0–6)	6 (1.5±0.5) (1–2)	90 (3.1±2.4) (0–11)	NS: a=0.179; b=0.925; c=0.319
FR (2PN/MII)	63.8	54.5	41.7	b a=0.567; b=0.006; c=0.402
Embryos cleaved (n, mean, range)	29 (3.2±1.5) (1–6)	4 (1±0.0) (1–1)	74 (2.85±1.97) (0–9)	NS: a=0.061; b=0.693; c=0.059
ECR (d2/2PN)	96.7	66.7	82.2	a, b a=0.015; b=0.049; c=0.346
Day 3 embryos (n, mean, range)	27 (3±1.8) (1–6)	2 (0.5±0.5) (0–1)	73 (2.9±2.1) (0–9)	a, c a=0.048; b=0.938; c=0.023
Day 3 grade A/B embryos (n, rate, range)	13 (48.1) (0–4)	1 (50.0) (0–1)	30 (41.1) (0–4)	NS: a=0.451; b=0.731; c=0.390
Embryos at day 5 (n, mean , range)	-	-	18 (1.29±2.7) (0–9)	NS: 0.522
BL (n, range)	-	-	2 (0–2)	-
BLR (BL/d5)	-	-	11.1	-
ETC (n, range, rate)	9 (2–4) (90.0)	4 (2–3) (100)	25 (2–5) (86.2)	NS: a=0.512; b=0.757; c=0.428
n° ET (n, mean, range)	25 (2.8±0.6) (2–4)	4 (1±0.0) (1–1)	51 (2.04±0.8) (1–4)	a, c a=0.000; b=0.058; c=0.009
BP (/ETC) (n, rate)	1 (11.1)	-	7 (28.0)	NS: a=0.488; b=0.305; c=0.224
CP (/ETC) (n, rate)	1 (11.1)	-	5 (20.0)	NS: a=0.488; b=0.548; c=0.326
Sacs (n, range)	2 (2–2)	-	6 (1–2)	-
IR (n° sacs/n° ET)	8.0	-	11.8	NS: 0.612
Sg (/CP) (n, rate)	-	-	4 (80.0)	-
Tw (/CP) (n, rate)	1 (100)	-	1 (20.0)	-
Triplets (/CP) (n, rate)	-	-	0	-
Ect P (/CP) (n, rate, range)	-	-	0	-
Abortion (/CP) (n, rate)	-	-	1 (20.0)	-
OP (/ETC) (n, rate) (CP-abortion)	1 (11.1)	-	4 (16.0)	NS: 0.722
Delivery (/ETC) (n, rate)	1 (11.1)	-	4 (16.0)	NS: 0.722
Stillbirth (/ETC) (n, rate)	-	-	-	-
LBDR (/ETC) (n, rate) (delivery-stillbirth)	1 (11.1)	-	4 (16.0)	NS: 0.722
NB (/ETC) (n, rate)	2 (22.2)	-	5 (20.0)	NS: 0.889
NB (Sg; Tw)	1 (Tw)	-	3 (Sg); 1 (Tw)	-
Male (/NB) (n, rate)	1 (50.0)	-	2 (40.0)	NS: 0.809
Female (/NB) (n, rate)	1 (50.0)	-	3 (60.0)	NS: 0.809
Male/female ratio	1	-	0.7	NS: 0.3822
NB malform (n, rate)	-	-	-	-
Major (/NB) (n, rate)	-	-	-	-
Minor (/NB) (n, rate)	-	-	-	-
NB Chr abn (n, rate, range)	-	-	-	-
ENdeath (/ETC) (n, rate, range)	-	-	-	-

TESE-C: results from ICSI with cryopreserved testicular sperm. Comparisons – a: AZFa versus AZFb; b: AZFa versus AZFc; c: AZFb versus AZFc. Values in "n", range, rate or mean±s.d.

<sup>a</sup>Significant differences ( $P<0.05$ ); NS: not significant. AZFa: one patient from TESE-C had 2 cycles with cryopreserved sperm; (3): three patients from TESE had 8 further cycles with cryopreserved sperm; AZFb, (2): two patients from TESE had 4 further cycles with cryopreserved sperm; AZFc: three patients from TESE-C had 6 cycles with cryopreserved sperm; (14): fourteen patients from TESE had 23 further cycles with cryopreserved sperm; MII: mature oocytes at metaphase II of meiosis; 2PN: normal fertilized oocytes (with 2 pronuclei and 2 polar bodies); FR: fertilization rate; ECR: embryo cleavage rate; Day 3 grade A/B embryos: high quality embryos at day 3; BL: blastocysts; BLR: blastocyst rate; ETC: embryo transfer cycles; n° ET: total number of transferred embryos; BP: biochemical pregnancy; CP: clinical pregnancy; IR: implantation rate; Ect P: ectopic pregnancy; OP: ongoing pregnancy; LBDR: live birth delivery rate; NB: newborn; NB malform: newborn malformations; Chr abn: newborn chromosome abnormalities; ENdeath: early neonatal death; TESE: testicular sperm extraction; AZF: azoospermia factor; s.d.: standard deviation; Sg: singletons; Tw: twins