

# HORMONAL TREATMENT PRIOR TO TESTICULAR SPERM EXTRACTION (TESE) IMPROVES ICSI OUTCOMES.

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## PROBLEM STATEMENT

To analyze embryological and obstetric outcomes obtained with the use of testicular sperm in patients receiving or not hormonal treatment prior to extraction.

## METHODS

Retrospective cohort study between January 2007 to December 2017. All male patients attending the IECH fertility center in Monterrey requiring TESE for ICSI were enrolled. Group 1 were patients with severe oligoasthenoteratospermia (OAT) and non-obstructive azoospermia (NOA) who received recombinant follicle stimulating hormone [rFSH (Gonal-F®)] 25 IU three times a week, or recombinant human chorionic gonadotropin [rHCG (Ovidrel®)] 250 mcg once a week for at least 6 weeks prior to TESE; and Group 2 were patients with obstructive azoospermia not receiving treatment.

## RESULTS

A total of 211 cases were analyzed (table 1); Group 1 (n=118) had mean age of  $38.2 \pm 6.9$ , while group 2 (n=93) had a mean age of  $40.5 \pm 7.4$  years. Women average age was  $33.8 \pm 5.1$  (Group 1) versus  $34.2 \pm 4.8$  years (Group 2). Mean FSH values for group 1 was  $8.6 \pm 6.7$  mUI/dL vs  $3.3 \pm 2.5$  for group 2. In group 1, 65% were patients with severe OAT and 35% with NOA. In total, 65% of the patients received rFSH and 35% received hCG. Testicular sperm was successfully retrieved in all cases including patients diagnosed with NOA.

Fertilization rates were 48% vs 51% between groups. Cleavage rate for group 1 was 94% vs 85% for group 2; blastocyst yield was 74% for group 1 vs 65% for group 2. None of these parameters were significantly different. Pregnancy rate was 35/118 (30%) for group 1 and 34/93 (36%) for group 2. Clinical and ongoing pregnancy rates were 48% for group 1 and 79% for group 2.

Live Birth rate was 48% group 1 versus 52% for group 2. Implantation rate was 18% for group 1 and 33% for group 2.

## CONCLUSION

Hormonal treatment of men with NOA and severe OAT prior to TESE equalize the reproductive performance when compared to OA. Future studies should compare men with NOA treated with hormones versus non-treated to show whether our findings of retrieving sperm in all cases of NOA is secondary to the pharmacological treatment.

## CONFLICT OF INTERESTS

No relationships to disclose.

**Table 1.**  
Demographics and ICSI parameters between two groups.

	Group 1	Group 2
<b>Number</b>	118	93
<b>Age</b>	$33.8 \pm 5.1$	$34.2 \pm 4.8$
<b>Mean FSH value</b>	$8.6 \pm 6.7$	$3.3 \pm 2.5$
<b>OAT</b>	65%	-
<b>NOA</b>	35%	-
<b>OA</b>	-	100%
<b>Fertilization rate</b>	48%	51%
<b>Cleavage rate</b>	94%	85%
<b>Blastocyst yield</b>	74%	65%
<b>Pregnancy rate</b>	30%	36%
<b>Clinical ongoing pregnancy</b>	48%	79%
<b>Live birth rate</b>	48%	52%
<b>Implantation rate</b>	18%	33%