ENHANCING MICRO-TESE SUCCESS: PROLISTEM SUPPLEMENT FOR NON-OBSTRUCTIVE AZOOSPERMIA

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PURPOSE & OBJECTIVES

- Assessment of the effectiveness of Prolistem[1-6], a novel supplement, in improving the outcomes of microTESE procedures in men with non-obstructive azoospermia (NOA) who have previously undergone unsuccessful sperm retrieval attempts.
- Identification of cofactors that may be associated with prediction of successful microTESE outcomes.

MATERIAL & METHODS

Randomized controlled study was conducted on 77 men diagnosed with non-obstructive azoospermia (NOA) who had previous failed sperm retrieval attempts. 44 of these participants were advised to use the Prolistem supplement before undergoing microTESE (test group - referred to as "Prolistem group"), while 33 did not received the Prolistem treatment (test group referred to as "Control group").

Prolistem Group: 44 participants administrated Prolistem supplement daily for six months before microTESE.
Control Group: 33 Participants received multivitamins before microTESE.

Procedure:
- **Pre-surgery phase**: Hormonal levels (Testosterone, FSH, and LH) were measured in Prolistem group before and after the treatment, in control group the hormones were measured before microTESE.
- **Surgery:** All participants underwent microTESE by the same surgical teams.
- **Post-surgery**: Success rates of sperm extraction were compared between groups, with secondary outcomes including hormonal changes. Differences in sperm extraction rates and hormonal changes were analyzed, with significance set at $p<0.05$.

Prolistem supplement significantly improves sperm extraction success rates during microTESE in men with non-obstructive azoospermia (NOA). Offering a promising new approach for enhancing fertility outcomes in this challenging patient population.

RESULTS

Table 1: Initial hormonal levels and successful microTESE outcomes

	Control group n=33		Prolistem group n=44	
	Successful	Unsuccessful	Successful	Unsuccessful
FSH (mIU/mL)	24.2±19.8	24.7±14.8	23.4±14.7	23.3±16.7
LH (mIU/mL)	12.2±5	10.1±5.3	8.2±5.3	12.7±7.7
Total Testosterone (nmol/L)	7.1±5.7	8.3±6.6	4.1±2.5	4.5±4.4
Success (%)	**21.20%**		**54.50%**	

Table 2: FSH and Testosterone levels before and after Prolistem course

	Successful (n=9)		Unsuccessful (n=14)	
	Before	After	Before	After
FSH (mIU/mL)	21.6±10.5	20.6±11.7	14.7±7.3	16.8±7.5
Total Testosterone (nmol/L)	3.8±2.3	4±1.6	3.1±1.4	3.5±1.8

Table 3: Success rate of microTESE in patients with NOA patterns

	Control group n=33	Prolistem group n=44
Sertoli Cell Only Syndrome	4/20	15/26
Maturation Arrest	3/13	9/18
Total	7/33	24/44
Success(%)	21.20%	54.50%

RESULTS

FSH, LH, and testosterone levels demonstrated no correlation between hormone levels and microTESE success rates (Table 1).

In the Prolistem group 24 out of 44 patients (54.5%) had successful sperm extraction during microTESE. In the control group 7 out of 33 patients (21.2%) achieved successful extraction.

Additionally, no significant differences in hormone levels were observed before and after Prolistem treatment between patients with successful and unsuccessful outcomes in the Prolistem group (Table 2).

Among the successful cases in the Prolistem group, 15 were diagnosed with Sertoli Cell-Only Syndrome (SCOS), and 9 with maturation arrest (MA). In the control group, 4 successful cases were SCOS, and 3 were MA (Table 3).

CONCLUSIONS

Prolistem supplement significantly increased the success rate of sperm extraction during microTESE for men with NOA compared to standard multivitamins.

In current study similar success rates were observed for SCOS and MA after Prolistem treatment.

These findings highlight the potential of Prolistem as a support treatment for successful microTESE outcomes in NOA patients.

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