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## **Re: Sabbaghian et al.: Comparison of Sperm Retrieval and Intracytoplasmic Sperm Injection Outcome in Patients With and Without Klinefelter Syndrome (Urology 2014;83:107-110)**

TO THE EDITOR:

In the present study, no significant difference was detected in nonobstructive azoospermia (NOA) patients with or without Klinefelter syndrome (KS) according to the results of testicular sperm extraction (TESE) results (28.4% vs 22.2%). In the literature, the sperm retrieval rate (SRR) of the NOA patients with KS is 21%-72%, which is similar to the results in the present study. However, the SRR in the NOA patients without KS is higher in the literature than the results in the present study.<sup>1,2</sup> Generally, SRR in microdissection TESE is reported as 50%.<sup>3</sup> The lower SRR in the present study might be due to the skills of the surgeons in microdissection TESE techniques as it may depend on factors other than surgical technique, such as embryologists' learning curves. The testicular volume and microdeletion of Y chromosome might also affect the SRR, but these factors were not mentioned in this study. However, it should be considered that SRR might show alterations according to the genetic and demographic characteristics of different regions of the world.

In the study, concerning the follicle stimulating hormone level, there was no statistical significant difference between the groups of KS patients who were detected to have sperm or not. Also, in comparison with the group of KS patients who were detected to have sperm, it is quite important that the testosterone level of the KS patients detected not to have sperm is significantly lower and the patients in this group should be informed that the probability to detect sperm in micro-TESE is lower. The testosterone level might decrease more after TESE operation when it is compared with the level in preoperative period,<sup>4</sup> thereof it should be recommended that KS patients with low testosterone levels after micro-TESE can be treated properly to prevent the long-term deleterious consequences of hypogonadism.

In this study, the relation between the SRR and testicular volume was not evaluated. However, there are a lot of studies in literature to find out whether there is relationship between SRR and testicular volume or not, and generally, it is accepted that there is no relationship between testicular volume and SRR.<sup>5</sup> However, in this large series study with 134 patients (when it is considered that the testicular volume of KS patients would be lower than the control group), testicular volumes being compared with SRR results would make the study more significant and meaningful.

In the study, the age of the partners of KS patients were compared with SRR; however, there is no possibility for the partner's age to effect the SRR. In the study, it is interesting that the fertilization rate is statistically significantly higher in the NOA patients with KS than the other NOA patients without KS. These results might be reevaluated in further studies with larger series. Finally, European Association of Urology (EAU) guidelines recommend preimplantation genetic diagnosis or amniocentesis analysis due to the significant increase of sex chromosomal and autosomal abnormalities in the embryos of KS patients. Therefore, before TESE operations, genetic information must be necessarily given to the KS patients.

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### References

1. Ramasamy R, Lin K, Veeck Gosden L, et al. High serum FSH levels in men with nonobstructive azoospermia does not affect success of microdissection testicular sperm extraction. *Fertil Steril*. 2009;92:590-593.
2. Deruyver Y, Vanderschueren D, Van der Aa F. Outcome of microdissection TESE compared with conventional TESE in non-obstructive azoospermia: a systematic review. *Andrology*. 2014;2:20-24.
3. Goldstein M. Surgical management of male infertility, chapter 22, reproductive and sexual function; section VI. In: Wein, Kavoussi, Novick, et al., eds. *Campbell-Walsh Urology*. 10th ed., vol. 1. Philadelphia, Saunders: Elsevier Inc; 2012:677.
4. Ramasamy R, Yagan N, Schlegel PN. Structural and functional changes to the testis after conventional versus microdissection testicular sperm extraction. *Urology*. 2005;65:1190-1194.
5. Ramasamy R, Ricci JA, Palermo GD, et al. Successful fertility treatment for Klinefelter's syndrome. *J Urol*. 2009;182:1108-1113.

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### Reply by the Authors

TO THE EDITOR:

We appreciate author's comments on and the interest in our recent publication. About sperm retrieval rate (SRR), as we mentioned in the article, the main reason for the difference in SRR in non-obstructive azoospermia (NOA) patients and other reports could be due to selection criteria because patients who had negative previous biopsies or patients with small and atrophic testes are candidates for micro-testicular sperm extraction (TESE) in our institute.

We do agree that the experience of surgeon is important and SRR was different between our surgeons, but