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A call for standardized outcomes in microTESE

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In his letter to the Editor, Dr. Song mentions a number of concerns regarding sperm retrieval techniques in men with non-obstructive azoospermia (NOA). At large academic fertility meetings, we find many series reported of sperm retrieval procedures, most notably microdissection testicular sperm extraction (microTESE), and these series commonly have high success rates. Dr. Song voices concern that the reported successes and experiences with microTESE that are reported are not widely seen among clinical urologists in practice.

We also share many of Dr. Song's concerns. We agree that standardization of definitions of patients to be included in NOA series need to be strict. For instance, if patients with cryptozoospermia are included in something described as microTESE (Alrabeeah, et al), **This is the author manuscript accepted for publication and has undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/andr.12356](https://doi.org/10.1111/andr.12356)**

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for instance, this would elevate the success rate, since these men do not have NOA. Patient inclusion and exclusion criteria in reports are variable and need to be standardized.

Another area of variation from center to center, is the laboratory handling of the specimens. In high-volume microTESE centers, the impact of assigning multiple laboratory technicians to examine testis tissue for many hours cannot be understated. This may be one explanation of higher sperm retrieval rates in such locations. However, this may not be practical in a free-standing clinical practice where there may be only one technician, and limited time to examine the tissue, as other tasks also need to be done.

Finally, almost all large reports of microTESE are free-standing case series. There may have been reports of simple biopsies done in the past, but drawing conclusions about the efficacy of microTESE in this setting is difficult, as prior treatment has been done by multiple providers with many different prior biopsy techniques. Therefore, stating that microTESE has a certain high success rate, even in the face of prior failed biopsy, is questionable without a standardized treatment plan prior to the microTESE. In a paper published by some of the authors of this letter (Jensen, et al), percutaneous needle biopsy was performed with 50-100 needles passes, sampling all areas of the testis as an initial method of sperm retrieval. Those who failed initial needle biopsy were offered microTESE with a success rate of only 11%.

With no well-designed comparative studies between microTESE and other sperm retrieval techniques, it remains difficult to really assess the relative advantages and disadvantages of the various approaches. Such a trial would have to adhere to a strict definition of NOA (Anderson and Hotaling) and randomize people to either initial microTESE or an alternative procedure, perhaps a very difficult thing to convince patients to do. However, only with strictly controlled, randomized, comparative studies would we finally be able to define the place of different sperm retrieval techniques in the management of NOA.

Mini-incision microdissection testicular sperm extraction: a useful technique for men with cryptozoospermia. Alrabeeah K, Witmer J, Ruiz S, AlMalki A, Phillips S, Zini A. *Andrology*. 2016 Mar;4(2):284-9.

Multiple needle-pass percutaneous testicular sperm aspiration as first-line treatment in azoospermic men. Jensen CF, Ohl DA, Hiner MR, Fode M, Shah T, Smith GD, Sonksen J. *Andrology*. 2016 Mar;4(2):257-62

Inherent difficulties of meta-analysis for surgical techniques in male infertility: an argument for standardizing reporting and outcomes. Anderson RE, Hotaling JM. *Fertil Steril*. 2015 Nov;104(5):1127-8

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