

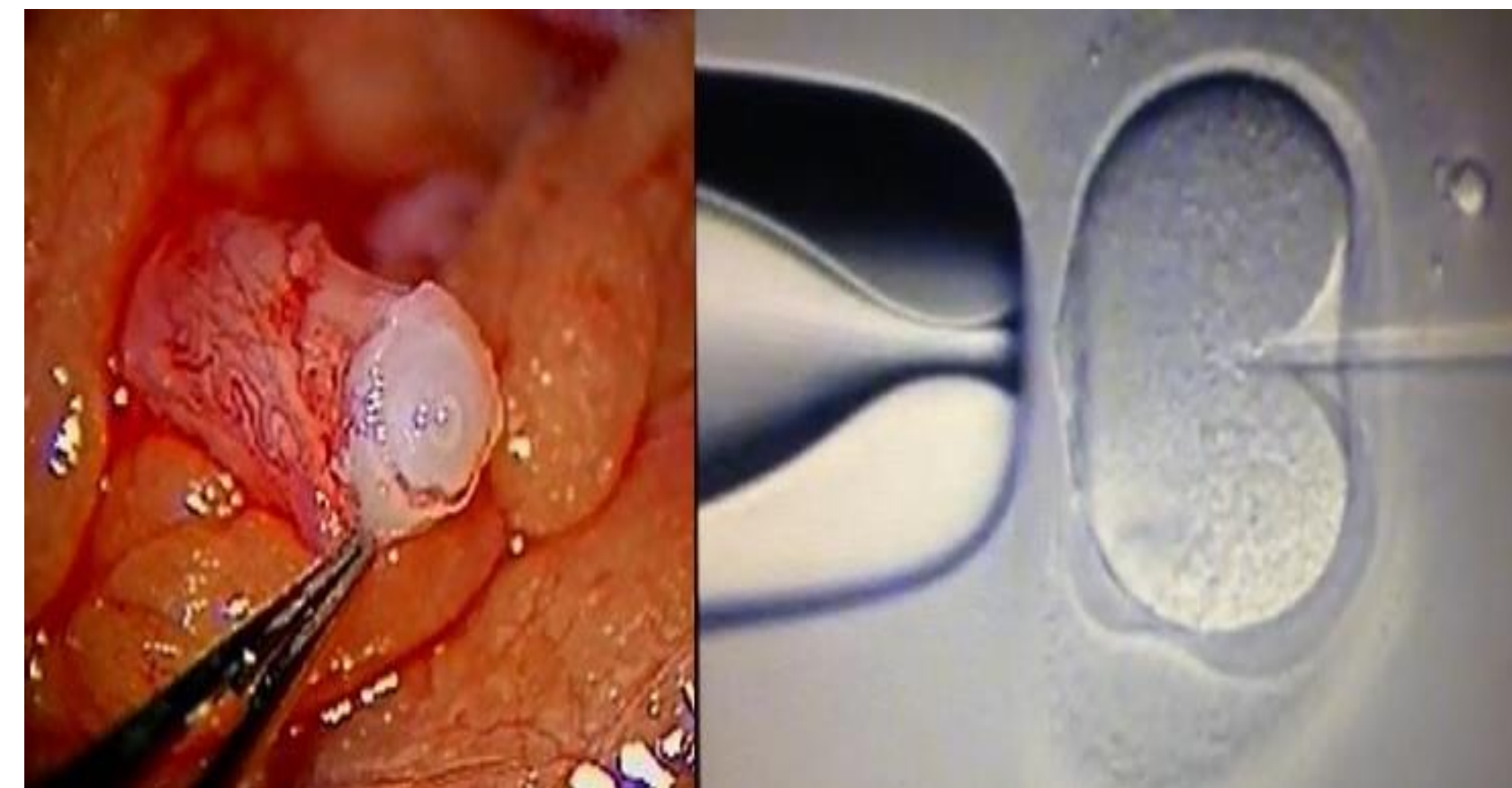
# Factors Impacting Couples' Decision Making Between Vasectomy Reversal Versus Sperm Retrieval/IVF/ICSI

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## INTRODUCTION

Of the 500,000 men who undergo vasectomy in the US annually, 6% change their minds and desire to regain fertility potential again. The two options available are vasectomy reversal (VR) or sperm retrieval with in-vitro fertilization/intracytoplasmic sperm injection (SR/IVF/ICSI). Numerous factors impact the decision making between the two options. In many instances the male partner is only evaluated by a urologist and counseled and treated with VR without an evaluation or counseling of the female partner, or the female partner is evaluated by a reproductive endocrinologist (RE) on the option of IVF/ICSI, and the male partner is referred to a urologist for SR.



## OBJECTIVES

**To identify objective factors which impact a couples' decision making between the options of VR versus SR/IVF/ICSI when counseled by both a reproductive urologist (RU) and RE.**

## METHODS

After IRB exemption, a retrospective chart review was performed in a private couples fertility center. All couples who presented for fertility options when the male partner had previously undergone vasectomy were encouraged to have their partner seen by the respective fertility specialist. Between 1/2011 and 2/2017, all such patients were offered an evaluation of their respective partner by the other respective specialist. SR was performed by testicular sperm extraction (TESE) with a 14 gauge punch biopsy. Patients were counseled on potential to conceive spontaneously with intercourse, average time to pregnancy per option, technical aspects of both, costs, and level of involvement for both partners with both options. Statistical analyses were performed via Student's t-test with  $p < 0.5$  considered statistically significant.

## RESULTS

A total of 175 patients elected to have their partners evaluated by the respective fertility specialist. An additional 109 men elected to proceed with VR without evaluation of the female partner. Of the 175 couples included, mean male partner age was 40.5 years and mean female partner age was 33 years. Mean obstructed interval was 9.7 years. Ultimately, 137/175 (78.3%) opted for VR and 38/175 (21.7%) opted for SR/IVF/ICSI, two of whom underwent donor oocyte IVF/ICSI. Diminished ovarian reserve (DOR) was defined as follicle stimulating hormone (FSH)  $> 10$  mIU/mL until 1/2013 when anti-müllerian hormone (AMH)  $< 1$  ng/mL was used. DOR was diagnosed in 25% of female partners. Of couples selecting VR, 23% had female partners with DOR. Of couples selecting SR/IVF/ICSI, 31/6% had female partners with DOR, two of which opted for donor oocyte IVF/ICSI. There was not a statistically significant difference in decision making in choosing VR versus SR/IVF/ICSI when the female partner was found to have DOR (p-value 0.30).

**Table 1: Partner age and Obstructed Interval in VR vs SR/IVF/ICSI Groups**

	VR (Mean, SD, Range)	SR (Mean, SD, Range)	p-value
<b>Male Age</b>	40.2 (6.0, 26-62)	41.3 (8.1, 29-61)	0.357
<b>Female Age</b>	32.7 (4.8, 19-44)	33.9 (5.5, 24-46)	0.188
<b>Obstructed Interval</b>	9.1 (5.6, 1-29)	11.6 (7.2, 1-29)	0.023

## CONCLUSIONS

**In this study, when couples are considering options to conceive after the male partner has previously undergone a vasectomy and are counseled on VR versus SR/IVF/ICSI by a RU and a RE, respectively, the majority selected VR. Male age, female age, and ovarian reserve status did not seem to play a significant role in this decision making; however, a longer obstructed interval since vasectomy was the factor that was associated with the decision making of couples toward SR/IVF/ICSI.**