

ANALYSIS OF PATIENTS WITH A HISTORY OF TUBAL STERILIZATION PRESENTING FOR FERTILITY CONSULTATION

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Background:

Approximately 600,000 tubal sterilizations are performed annually in the United States.(1) The U.S. Collaborative Review of Sterilization (CREST) study found that 14% of women who underwent sterilization sought information about reversal, but only 1% underwent the procedure.(2) Since then, the standard for achieving pregnancy after tubal sterilization has evolved from tubal reversal to in-vitro fertilization (IVF), however, limited data exists about patients pursuing treatment.

Objective:

This study aims to explore the profiles of patients with a history of tubal sterilization who seek fertility treatment, including their motivation to pursue care.

Materials & Methods:

A retrospective analysis was performed at a single, high volume, academic affiliated IVF center from 2014 - 2024. Natural language processing was used to identify patients based on the following key terms: tubal ligation, tubal sterilization, and BTL. Patients who underwent tubal surgery for other indications, such as hydrosalpinx or ectopic pregnancy, were excluded. A chart review was performed to gather patient specific information including age at new patient appointment, age at time of sterilization, time interval between sterilization and consultation, number of prior children, and reason for seeking treatment. Univariate analyses using the Mann-Whitney U were performed to compare data between patients who proceeded with fertility treatment and those who did not.

Results:

A total of 219 patients with a history of tubal sterilization presented for fertility consultation. Data on age at time of consultation, age at sterilization, time since sterilization, and number of children is presented in Table 1. The mean age at time of sterilization among all patients was 28.5 ± 5.0 years, with most procedures performed at the time of c-section or immediately following vaginal delivery (60%). The mean age at new patient visit was 39.2 ± 5.0 years. A total of 26 patients (11.9%) reported attempting tubal reversal surgery. The primary reason patients cited for seeking fertility treatment was having a new partner (83.3%). Other reasons included interest in sex selection (2.4%), oocyte cryopreservation without a partner (1.0%), and death of a child (0.50%). The remaining subset of patients seeking treatment were with the same partner from the time of sterilization (12.9%). Of all patients, 53 (24.2%) proceeded with fertility treatment, while 166 (75.8%) did not. Patients who moved forward with treatment were

significantly younger when presenting to care (37.8 years versus 39.7 years, $p = 0.03$) and had a significantly shorter interval from sterilization (9.0 years versus 11.1 years, $p = 0.02$). The average number of prior children and average age at time of sterilization were similar between patients who did and did not move forward with fertility treatment.

Conclusions:

This data suggests that a small portion of patients who undergo tubal sterilization later seek fertility treatment. The majority of patients who presented with a history of tubal sterilization ultimately did not move forward with treatment. Future research should focus on understanding long-term satisfaction of all patients who undergo tubal sterilization, and work to identify those at highest risk for regret and the barriers faced in pursuing fertility treatment.

Support: none

References:

1. Daniels K, Abma JC. Current contraceptive status among women aged 15–49: United States, 2017–2019. NCHS Data Brief, no 388. Hyattsville, MD: National Center for Health Statistics. 2020.
2. US Collaborative Review of Sterilization Working Group, H.B Peterson, Z Xia, J.M Hughes, L.S Wilcox, L.R Tylor, J Trussel. The risk of pregnancy after tubal sterilization: findings from the US collaborative review of sterilization. Am J Obstet Gynecol, 174 (1996), pp. 1161-1170

	All patients	Group 1: Patients who initiated fertility treatment	Group 2: Patients who did NOT initiate fertility treatment	p value (Group 1 vs Group 2)
Age at time of New Patient Visit (mean \pm SD)	39.2 \pm 5.0	37.8 \pm 4.5	39.7 \pm 5.1	0.03
Age at time of Tubal Sterilization (mean \pm SD)	28.5 \pm 5.0	28.6 \pm 4.6	28.5 \pm 5.2	0.73
Number of Years since Tubal Sterilization (mean \pm SD)	10.6 \pm 5.5	9.0 \pm 4.9	11.1 \pm 5.6	0.02
Number of Children Prior to Tubal Sterilization, Patient (median, IQR)	3 (1)	2 (1)	3 (1)	0.13
Number of Children Prior to Tubal Sterilization, Partner (median, IQR)	0 (1.5)	0 (1)	1 (2)	0.37
Partner Age (mean \pm SD)	38.0 \pm 7.8	37.0 \pm 7.0	38.3 \pm 8.0	0.29