

PARTIAL OBSTRUCTION, NOT ANTISPERM ANTIBODIES, CAUSING INFERTILITY AFTER VASOVASOSTOMY. Dominick J. Carbone, Jr., Anuj Shah, Anthony J. Thomas, Jr., and Ashok Agarwal, Cleveland, OH
(Presented by Dr. Carbone)

INTRODUCTION AND OBJECTIVES: Persistent infertility in the post-vasovasostomy (V-V) patient with an adequate sperm concentration has been attributed to antisperm antibodies (ASAs), epididymal dysfunction, or female factors. Partial obstruction must also be considered, even with coexisting ASAs. We report 20 men with normal partners who had undergone V-V but remained infertile; all had sperm in the ejaculate and significant levels of ASAs. We sought to determine whether these men could be distinguished from others with ASAs, and whether repeat reversal would be of any benefit.

METHODS: Charts of 412 patients who underwent immunobead testing (IMB) for ASAs were reviewed. Of 95 patients with greater than 20% binding, 49 had normal partners and were grouped by history: V-V (n=20), varicocele (n=9), cryptorchidism (n=8), and epididymo-orchitis (n=12). Semen analysis parameters and ASA binding variables for each group were compared. Pregnancy rates achieved by patients treated surgically for partial obstruction were compared to those achieved by patients treated with assisted reproduction (ART) for ASAs. Mean follow-up was 33.8 months.

RESULTS: Fourteen men in the V-V group were diagnosed with partial obstruction of the anastomosis. These patients were distinguished from others with ASAs on the following basis: epididymal fullness by palpation (14/14 vs. 0/35); lower sperm concentration ($18.1 \times 10^6/\text{mL}$ vs. $39.1 \times 10^6/\text{mL}$, $p < 0.002$), poorer motility (4.4% vs. 48%, $p < 0.001$), and lower binding on IMB screening (66% vs. 95%, $p < 0.01$). These 14 men were treated with a repeat microsurgical reversal, while 29 of the other 35 patients were treated with sperm washing and ART (17 with IUI, 9 with IUI and IVF, and 3 with IUI, IVF, and ICSI). Six patients with no evidence of obstruction received no further therapy. Seven of 14 patients (50%) established pregnancies after repeat reversal compared to only 5/29 patients (17.2%) treated with ART ($p < 0.026$).

CONCLUSIONS: ASAs are not a significant factor in persistently infertile post-reversal patients with the criteria listed above. Repeat reversal appears to be the most successful treatment option in this setting.