

**Results:** A total of 18 patients were included in our analysis. All patients had previously attempted and failed cabergoline monotherapy for DE. Average testosterone levels in the cohort were 835, and 78% of our cohort was on testosterone replacement therapy. The average follow up for evaluation was 7.7 months after adding OT to cabergoline therapy. Improvement in DE symptoms was reported by 6 patients (33%). Among patients who noted improvement in symptoms, 4 described the improvement as “excellent” or “great” and 2 described it as “good.”

**Conclusion:** DE remains difficult to treat for both patients and physicians. The addition of OT offers some men with refractory delayed ejaculation significant benefit and improvement in symptoms. With expanded use by urologists managing patients with DE, we can gain a better understanding of the effect of OT and identify which patients are likely to see the greatest benefit with OT supplementation.

**Poster 42**

**MEN UNDERGOING VARICOCELECTOMY SHOW IMPROVED SPERM CAPACITATION AND AN ASSOCIATED PROBABILITY OF GENERATING A PREGNANCY**

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**Introduction & Objective:** Varicocele is the most common surgically correctible cause of male infertility. Many reports show improvements in semen analysis (SA) following varicocelectomy. Despite the pervasive use of SA, there is general recognition of its limited accuracy, reliability and ability to predict fertility. The Cap-Score™ (Androvia LifeSciences) is a validated test using monosialotetrahexosylganglioside localization patterns to evaluate sperm capacitation. Cap-Score prospectively predicts male fertility and is directly related to a man’s probability of generating pregnancy (PGP). Here Cap-Score was compared between men questioning their fertility that presented with varicocele and fertile men. The efficacy of varicocelectomy to restore male fertility was evaluated by comparing Cap-Scores and SA measures before and after surgery.

**Methods:** Cap-Score and SA measures (volume, density, motility and morphology) were obtained before and after varicocelectomy. Cap-Scores were also obtained from men of known fertility, who generated a pregnancy within three rounds of IUI. Comparisons were done using paired or unpaired t-tests as indicated.

**Results:** Men questioning their fertility and presenting with varicocele had lower Cap-Scores than men with known fertility (25.5±1.4 vs 31.5±0.8; n = 23 vs 95; P = 0.001; unpaired t-test). Following varicocelectomy, there was a significant increase in Cap-Score (22.6±1.4 vs 29.3±2.4; n = 9; P = 0.019; paired t-test). When including all 9 men analyzed, this corresponded to a 44% increase in PGP, from 24.8 to 35.7%. However, the effect was not uniform; 3 men showed no effect and 6 showed significant improvement. In these 6 men, a 76% increase in PGP was observed from 23.7 to 41.7%. Some SA measures also

improved post varicocelectomy (paired t-tests): density (31.5±4.5 vs 48±6.6 x10<sup>6</sup>/mL; n = 22; P = 0.001); motility (54.5±2.0 vs 60±1.5 %; n = 16; P = 0.002); and morphology (1.2±0.3 vs 2.5±0.4 %; n = 21; P < 0.001). Varicocelectomy had no impact on semen volume (2.6±0.3 vs 2.4±0.3 mL; n = 22; P = 0.858; paired t-test).

**Conclusion:** Varicocele has a negative impact on sperm capacitation. Varicocelectomy positively impacted fertility, with 67% of men showing an estimated 76% increase in PGP. While some SA measures showed improvements, these are only tenuously associated with male fertility. Addition of Cap-Score, which prospectively predicts male fertility, to the evaluation of male fertility may offer urologists a novel mechanism to independently determine treatment need and evaluate post-procedure guidance.

**Poster 44**

**THE EFFECT OF SMOKING ON VASECTOMY REVERSAL OUTCOMES**

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**Introduction & Objective:** Tobacco use does seem to negatively impact semen parameters. In addition, tobacco use may impair post-operative wound healing. There are no studies looking at the effect of smoking on vasectomy reversal (VR) outcomes. We sought to determine the relationship between smoking and VR outcomes.

**Methods:** Reproductive outcomes were assessed for men who underwent VR by a single high-volume microsurgeon (S.F.M). 4,409 men underwent VR from 1993 to 2018. Of these, 3749 had never been smokers and 660 had a history of smoking (past or present).

We evaluated for male age, body mass index (BMI), female partner age, vasal obstructive interval, type of anastomosis, post-VR total motile sperm count (TMC), and pregnancy post-VR. Statistical analysis was performed on SPSS using Mann-Whitney and Chi-squared tests with P < .05 considered significant. Binary regression was also run to assess factors affecting successful pregnancy.

**Results:** Non-smokers had a significantly shorter obstructive interval (9.92 vs 10.44; P < .001). Non-smokers had a higher female partner age than smokers (32.95 vs 31.26, P < .001). There was no difference in age, BMI, anastomosis type and post-VR TMC between smokers and non-smokers.

In a binary regression adjusting for smoking status, type of anastomosis, obstructive interval, age, partner age, and BMI; smoking was significantly associated with a lower chance of a successful pregnancy (OR 0.57 95% CI 0.43–0.76 P < .001). Increased obstructive interval and advancing female partner age were both associated with lower chances of achieving a pregnancy as well (OR 0.97, 95% CI 0.95–0.99, P = .006 & OR 0.95, 95%CI 0.93–0.97, P < .001).

**Conclusion:** While smoking did not affect post-VR TMC, it was associated with a lower chance of achieving a post-VR