CONCLUSIONS: This study shows a cutoff point for inhibin B > 88.0 for a good prognosis of finding sperm in azoospermic individuals for assisted reproduction through TESE. Furthermore, an inhibin B <2.2 points to a bad prognosis, suggesting that the patients look further into infertility treatment alternatives, such as sperm bank.

Source of Funding: None

MP21-04
SUCCESSFUL SPERM RETRIEVAL FOR MEN WITH Y CHROMOSOME AZFc MICRODELETION
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INTRODUCTION AND OBJECTIVE: Among the genetic aberrations contributing to male infertility, the deletion of the AZFc region of the Y chromosome is a common cause of spermatogenetic failure and the chances for successful surgical sperm extraction from azoospermic men with AZFc region microdeletion are relatively good. Nevertheless, it is still a challenge to procure sperm from a sizeable proportion of individuals with AZFc microdeletion, even when meticulous surgical measures are employed. The objective of this study is to identify predictive factors for successful sperm retrieval in men with AZFc microdeletion.

METHODS: 76 infertile men were studied, each having Y chromosome AZFc microdeletion at some time during a 10-year period, as confirmed by multiplex polymerase chain reaction (PCR) amplification of STS (sequence tagged site). For each patient, the endocrine profile including serum follicle stimulating hormone (FSH), luteinizing hormone (LH), total testosterone (TT), prolactin (PRL) and estradiol (E2) was recorded, along with intratesticular testosterone level (ITT), age and testicular size. The factors were further analyzed to determine the key predictors for successful sperm retrieval.

RESULTS: Of the 76 men with AZFc microdeletion, 56 were classified as having non-obstructive azoospermia (NOA), 8 as having cryptozoospermia, and 12 as having severe oligoaethenoteratozoospermia (OAT). Of the 56 men with azoospermia, 50 received microsurgical TESE (mTESE), and sperm retrieval was successful in 37 of those cases (74 %). A significantly lower serum FSH (P = 0.02) was found in those patients from whom sperm could be successfully retrieved. On the other hand, parameters such as levels of LH, TT, PRL, E2, testicular volume and age were not found to be correlated with successful sperm recovery. The area under the receiver operating characteristic (ROC) curve (AUC) for FSH was determined to be 0.721. Using an FSH cut-off point of 12.95 mIU/mL according to Youden's index, the model for predicting successful sperm retrieval was found to have 51.4% sensitivity, 84.6% specificity, 90.5% positive predictive value (PPV) and 37.9% negative predictive value (NPV).

CONCLUSIONS: Men exhibiting AZFc microdeletion with discernible spermatogenesis from whom sperm was successfully retrieved by mTESE generally presented with relatively lower FSH levels.

Source of Funding: nil

MP21-05
HOW FAR WILL THEY GO? DISTANCE AND DRIVING TIMES THAT NORTH AMERICAN MEN TRAVEL TO SEE A REPRODUCTIVE UROLOGIST
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INTRODUCTION AND OBJECTIVE: To determine the most important factors associated with the distance and time men travel for a reproductive urologist (RU) fertility evaluation.

METHODS: Data from the Andrology Research Consortium (ARC) were analyzed. Driving distance and time were calculated by comparing “patient postal code” with “clinic postal code”, then stratified into quartiles. Patients with the longest driving times (>75th %tile (Q4)) were compared with those having shorter driving times. Logistic regression models were used to identify factors associated with longer driving times.

RESULTS: Sixteen clinics and 3,029 men were included. The median driving distance was 18.1 miles, median driving time was 32 minutes, and Q4 driving time was 49 minutes. Bivariate factors correlated with having Q4 driving time were younger age of 20-29 years, Native Indian and Caucasian race, BMI >30 kg/m², history of miscarriage, children with previous partner, self-referral, prior vasectomy, and prior marijuana use. With multivariable logistic regression, older males (30-59 years old) were less likely to be in Q4 for driving time versus males less than 30 years (OR<0.55, p<0.001). African Americans and Asians were less likely to travel further than Caucasian (OR<0.29, p<0.001). Patients with history of alcohol use were also less likely to have Q4 for driving time (OR=0.75, p=0.005). Men who were overweight or obese (OR>1.42, p<0.005), had children with previous partner (OR=2.73, p<0.001), and with prior vasectomy (OR=2.14, p<0.001) were more likely to have longer travelling time (Figure).

CONCLUSIONS: Factors correlated with longer driving times include younger age, Native Indian and Caucasian race, higher BMI, children with prior partner, and prior vasectomy. While the cause for the disparity in these groups is unknown, the longer drive times may result in lost wages or possibly reflect groups that do not drive long distances for reproductive care. This data provides an opportunity for us to better reach these groups and minimize barriers to reproductive care for them.

| Characteristics | Successful sperm retrieval (n=37) | Unsuccessful sperm retrieval (n=13) | p value |
|-----------------|---------------------------------|-------------------------------|--------|
| Age (yrs)       | 34.6 ± 4.5                      | 33.7 ± 5.1                    | ns     |
| FSH (mIU/mL)    | 14.3 ± 8.3                      | 21.7 ± 10.5                   | 0.02   |
| LH (mIU/mL)     | 7.0 ± 2.7                       | 6.7 ± 4.6                     | ns     |
| Testosterone (ng/mL) | 4.2 ± 1.4                      | 4.1 ± 1.8                     | ns     |
| Prolactin (ng/mL) | 9.0 ± 3.9                       | 12.5 ± 9.9                    | ns     |
| E2 (pg/mL)      | 22.4 ± 9.5                      | 20.8 ± 8.6                    | ns     |
| Right testicular size (ml) | 12.5 ± 4.7                      | 13.4 ± 4.7                    | ns     |
| Left testicular size (ml) | 12 ± 4.4                        | 13.1 ± 4.6                    | ns     |

Source of Funding: None
had a vasectomy (3.3% vs 5.9%, p < 0.001), less likely to have had a vasectomy (1.2% vs 6.9%, p < 0.001), and more likely to have had partners that underwent IUI or in vitro fertilization (IVF) (14.2% vs 11.9%, p = 0.024 and 8.0% vs 6.3%, p = 0.021, respectively). Native/Indians were more likely to wait longer before pursuing evaluation (5.1 vs 3.6 years, p = 0.035) and more likely to have had a vasectomy (13.4% vs 5.7%, p = 0.014).

CONCLUSIONS: This is the first study looking at racial differences for males undergoing male fertility evaluation by a reproductive urologist. Racial differences exist, and a better recognition and understanding of these, in conjunction with societal and biologic factors can guide personalized care. This is an opportunity to better understand and address disparities in access to fertility care.

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