

## **Reproductive outcomes following myomectomy in African American women.**

**Authors:** O. Young, A. Styer, D. Brown

**Institution:** Massachusetts General Hospital, Boston, MA

**Objective:** There is widely published data that supports that African American women are disproportionately affected by uterine fibroids. This in turn gives this population of women potential infertility risks and reproductive morbidity including recurrent pregnancy loss, preterm delivery, and cesarean delivery among others. With regards to infertility myomectomy is known to improve reproductive outcomes in women regardless of background. However African American women are disproportionately subjected to laparotomy rather than minimally invasive approach. The goal of this study is to show that if given access the minimally i nvasive approach African American women will also have favorable reproductive outcomes.

**Design:** Retrospective study examining reproductive outcomes of African American/Black women compared to their Caucasian counterparts following myomectomy.

**Methods:** African American/black (AA/B) and Caucasian/white women (C/W) from 18 to 34 years of age treated from 2009 to 2014 at Massachusetts General Hospital. These women were managed with minimally invasive approach including hysteroscopic myomectomy (HM) and laparoscopic myomectomy (LM). Furthermore laparoscopic approach was further broken down into group where 1 to 4 fibroids were removed and 5 or more fibroids were removed. Outcomes examined were preterm delivery (defined as delivery before 37 weeks gestational age), cesarean delivery, spontaneous abortions, and live births.

**Results:** There were a total of 677 women who met the inclusion criteria during this time frame. Within the AA/B there were a total of 170 procedures (HM: 88, LM 1-4: 54, LM $\geq$ 5 28). Within the C/W group there were a total of 507 procedures (HM: 305, LM 1-4: 143, LM $\geq$ 5 59). Within the AA/B HM group there were 18 preterm deliveries, 16 cesarean deliveries, 19 spontaneous abortions, and 44 live births. Within the C/W HM group there were 23 preterm deliveries, 85 cesarean deliveries, 82 spontaneous abortions, and 154 live births. Within the AA/B -LM 1-4 group there were 23 preterm deliveries, 30 spontaneous abortion, and 26 live births. In the C/W LM 1-4 group there were 14 preterm deliveries, 26 cesarean deliveries, 39 spontaneous abortions, and 76 live births. For the AA/B LM  $\geq$  5 8 preterm deliveries, 5 cesarean deliveries, 8 spontaneous abortions, and 18 live births. For the C/W LM  $\geq$  5 9 preterm deliveries, 12 spontaneous abortions 18 cesarean deliveries, and 39 live births.

**Conclusions:** As revealed if American women are given access to minimally approach they will have favorable outcomes. The obvious limitation to this study is in its retrospective nature there limited in ability to truly capture patient population with respect to specific size and location of uterine fibroids. Ultimately the goal from a healthcare disparities perspective is determine factors which can increase access to minimally invasive surgery for African American women in an to decrease surgical morbidity while offering improved reproductive outcomes.