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RACIAL DISPARITIES IN OUTCOMES IN A POPULATION-BASED COHORT UNDERGOING MYOMECTOMY FOR FIBROID DISEASE

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BACKGROUND

Racial/ethnic disparities impact the care delivered as well as outcomes in numerous medical fields, including obstetrics and gynecology. Though most commonly discussed in the context of postpartum complications, the impact of race and ethnicity is seen in gynecologic outcomes, as well. The potential for disparity in the commonly performed myomectomy procedure has not been rigorously studied to date. Black women not only have a higher prevalence of uterine fibroids as compared to White women, but also tend to have larger, more numerous, and faster growing fibroids. This is pertinent as myomectomy can be performed using a minimally invasive approach (laparoscopy or robotic) or via an open approach (laparotomy). While the minimally invasive approach has been associated with fewer complications compared to laparotomy, it is reserved for less bulky fibroid disease. Current studies have shown Black women's rate of open (as opposed to minimally-invasive) hysterectomy at 30% higher than their White counterparts.

Given that myomectomy is a common fertility-preserving procedure performed in women with fibroids, it is imperative to explore racial/ethnic differences in outcomes.

OBJECTIVES

- To assess the outcomes of myomectomy procedures utilizing a large population-based dataset and assess for independent associations between Race/Ethnicity and complication rates by simultaneously controlling for surgical and patient factors.

METHODS

1. Data from the Office of Statewide Health Planning and Development (OSHPD) was utilized to retrospectively identify all women who underwent myomectomy for fibroid disease in the state of California from 2005-2012.
2. Identified ICD-9 procedure codes and accompanying past medical history, procedures performed and any new events relating to the patient's current encounter
3. Performed univariate and multivariate analysis to explore for associations between patient demographics or surgical factors and the occurrence of a complication (both overall and serious).

RESULTS

Cohort : 35,151 women

- 33,906 open abdominal and 1,245 minimally invasive myomectomies
- White-38.8%, Black-19.9%, Hispanic-20.3% and Asian-15.3%
- Black patients were more likely than White patients to undergo open procedures (4.8% vs. 1.3%, p<0.001), which were associated with higher complication rates (7.6% vs. 4.7%, p<0.001)
    - rate of complications among Hispanic women was similar to Asian (7.9%), however, when adjusting for confounders it was not statistically significant
- Indigent payor status (Medicaid-12.1% and Self-Pay-11.1%) had a higher rate of complications as compared to the privately insured (6.4%) (p<0.001)
- Risk of a serious complication did not vary by race
- No association of unplanned hysterectomy with race/ethnicity was observed

Associations with Serious Complication Occurrence

		ANY COMPLICATIONS	
		Univariate n (%), p	**Multivariate OR (95 CI), p**
PAYOR	**Private**	1,859 (6.4%)	Reference
	Medicare	187 (17.5%)	1.22 (0.99-1.51), 0.061
	Medicaid	303 (12.1%)	1.87 (1.62-2.15), <0.001
	Self	160 (11.1%)	2.05 (1.71-2.45), <0.001
	Other	212 (13.9%), <0.001	1.03 (0.79-1.36), 0.824
RACE	**White n=13,653**	909 (6.7%)	Reference
	Black n=6,990	627 (9.0%)	1.37 (1.22-1.54), <0.001
	Hispanic n=7,137	563 (7.9%)	1.11 (0.99-1.25), 0.073
	Asian n=5,377	396 (7.5%)	1.28 (1.13-1.46), <0.001
	Other/unkwn n=1,994	127 (6.4%), <0.001	0.99 (0.82-1.21), 0.939
APPROACH	**Laparoscopic n=1,245**	58 (4.7%)	0.68 (0.52-0.90), 0.007
	Open n=33,906	2,564 (7.6%), <0.001	

DISCUSSION & CONCLUSION

- In concordance with previous studies, this study supports the presence of significant racial disparities in the surgical treatment of uterine fibroids, most affecting Black and Asian patients
- Comorbidities, an open surgical approach, and indigent payor status were associated with increased complication rates.
- Rsk of serious complications was not affected by race, whereas minor complications were. Which was seen in both blood loss during surgery and delayed complications post-operatively(I.e. wound dehiscence/ infretion, UTI, and DVT
- Approaches for disparity mitigation include:
    - Use of hemostatic agents
    - Timely conversion to laparotomy if necessary
    - Adoption of quantitative blood loss practice
    - Improved communication between patient and provider through closer follow-up (e.g. post-operative call from nursing)
    - Standardized wound care education that considers language barriers/health literacy
- Power morcellation can make laparoscopic surgery for larger fibroids achievable and could dramatically improve surgical outcomes and cosmesis in low risk patients with sufficient counseling and appropriate patient selection
- To ensure more equitable care, further research is warranted to identify the underlying reasons for these differences.

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