

Disparity relating to Black and Asian ethnicity in laparoscopic approach and reintervention rates after myomectomy in England: a retrospective cohort study

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Introduction

- Emerging evidence suggests that there may be disparity concerning Women’s Health outcomes relating to ethnicity in the US. This is particularly concerning given that Black women suffer disproportionately from uterine fibroids. To date, there has been limited study regarding the impact of ethnicity on post-surgical outcomes after myomectomy.

Aims

- The purpose of this study was to examine the impact of ethnicity on surgical route and reintervention outcomes post-myomectomy in England.

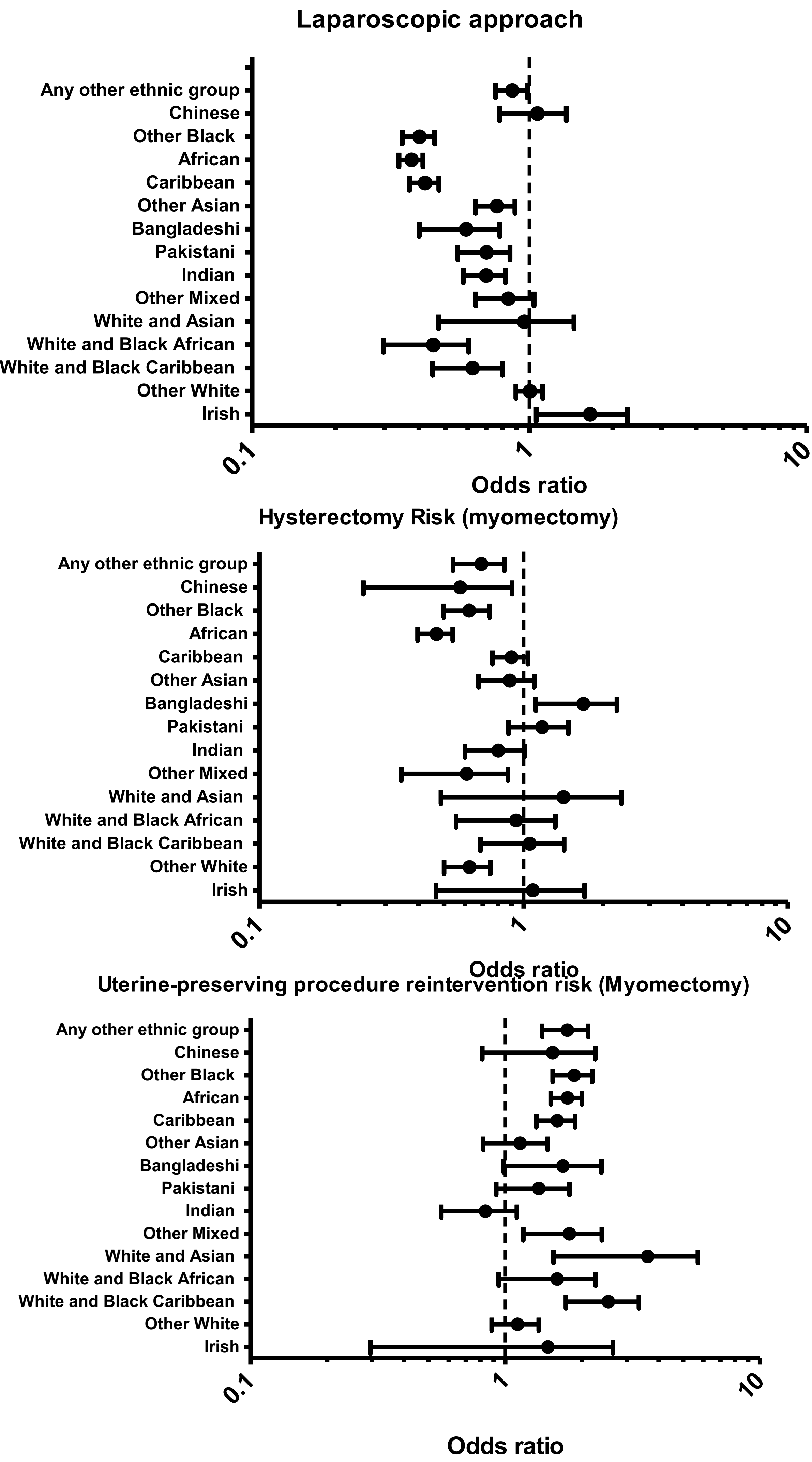
Methods

- Retrospective, national population-based, cohort study utilising Hospital Episode Statistics(HES) data
- Cohort determined based on HES dataset extract
- Inclusion criteria:** Patients were identified in the HES Admitted Patient Care dataset between 2010 and 2015 that underwent myomectomy in England under the NHS
- Exclusion criteria:** Women who were aged less than 18 years; underwent a non-elective procedure; were coded as having a hysterectomy during the encounter of their index procedure
- All encounters linked relating to an individual cohort member using HESID until end of study. After the index treatment, all subsequent encounters scrutinised for the presence of reintervention OPCS4 procedural codes until the end of study. Patients undergoing hysterectomy or Uterine-preserving procedure (UPP) reinterventions contributed person-time to the study until first occurrence of either hysterectomy or UPP reintervention, death, or end of study (31st March 2020).

- Primary outcome(s):** UPP and hysterectomy reinterventions rates after index myomectomy
- UPP reintervention included only myomectomy, uterine artery embolization, endometrial ablation, or MR guided focused ultrasound procedures
- Chi-squared test was used to compare categorical variables. Binary logistic regression was used to provide an estimate of the crude risk for laparoscopic approach after myomectomy. Cox’s proportional-hazards regression model was used to provide an estimate of the crude risk for hysterectomy or UPP reintervention after index treatment for myomectomy.
- Adjusted risk was conditioned on case-mix covariates that included: age, geographical region, comorbidities, and index of multiple deprivation.
- British (White) women were the reference(comparator) group for minoritized groups because of the potential influence of unconscious bias.

Results

- There were 9443 myomectomies undertaken over 5 years
- Odds ratios are plotted below for laparoscopic approach, hysterectomy reintervention and uterine-preserving procedure reintervention outcomes.



Conclusions

Summary points

- Black ethnicity women were around 60% less likely to undergo a laparoscopic approach and less likely to undergo a hysterectomy reintervention.
- Interestingly Pakistani, Indian, Bangladeshi, and other Asian women also were significantly to undergo a minimal access approach.
- The HES dataset does not include data regarding fibroid anatomy, patient or clinician preferences nor how women have been counselled. Nevertheless, studies have demonstrated adverse surgical outcomes even after adjustment for fibroid anatomy in relation to ethnicity in the US.
- Given the demonstrated disparity and the potential public health implications, more work needs to be done to understand the underlying reasons for these differences relating to ethnicity, including any potential unconscious bias.



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