

Long Term Complications of Open and Robot-assisted Laparoscopic Radical Prostatectomy in an Afro-Caribbean Cohort

Introduction: The efficacy of radical prostatectomy (RP) for the treatment of localized prostate cancer carries risk for complications. Traditionally, RP has been performed using an open method (ORP); however, the robot-assisted laparoscopic (RALP) method has become more popular. Although studies have investigated differences in standardized complications between ORP and RALP, there is a paucity of data on Afro-Caribbean men. This population forms 5% of the African descent population in the US, making it imperative to evaluate differences in complications between ORP and RALP in this sub-ethnic group.

Methods: A retrospective study was done on patients of African descent and born in a Caribbean country that underwent treatment of localized prostate cancer between April 2010 and August 2019. Patients were split into two groups: ORP or RALP. Baseline patient characteristics and long-term complications were compared. Differences in standardized complications were evaluated using the Clavien-Dindo scale. The Mann-Whitney U and Fisher's Exact tests for statistical significance were conducted for continuous and categorical data, respectively. Multivariable logistic regression was used to assess the odds of surgical approach on complications.

Results: 53 Afro-Caribbean patients (mean age \pm SD; 65.9 ± 6.8 years) were included: 30 for ORP and 23 for RALP. Less patients experienced any complications when treated with RALP compared to ORP (43.5% vs 73.3%, $p=0.027$; OR=0.28, 95%CI 0.09-0.89, $p=0.024$). Most of the noted complications had a Clavien-Dindo classification grade of \leq II for both procedures. RALP resulted in less grade II complications compared to ORP: 30.4% vs 63.3% of patients ($p=0.048$) and OR of 0.25 (95%CI 0.08-0.81, $p=0.046$) (Table 2).

Conclusion: Treatment of Afro-Caribbeans with RALP allows for a lower probability of complications, especially Clavien-Dindo Grade II complications.