

INCREASING AGE, OBESITY, AND DIABETES INDEPENDENTLY ASSOCIATED WITH URINARY INCONTINENCE AFTER ROBOTIC PROSTATECTOMY IN HISPANIC MEN

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Introduction and Objectives: According to the American Diabetes Association, Puerto Ricans have the highest rate of diabetes mellitus (DM) of any ethnic group in the US (13.8% vs. 7.1% of non-Hispanic Caucasians). DM has been associated with a higher risk of post-prostatectomy incontinence. Herein we present the initial report of the impact of DM on urinary continence after robotic prostatectomy (RP) in Puerto Rican men.

Methods: A prospective database was created for 453 consecutive prostate cancer patients who underwent RP by a single surgeon. All patients underwent anterior and posterior (Rocco) reconstructions. The cohort consisted of 300 men with follow-up \geq 1 year. Clinical variables were correlated with continence one year after surgery. Continence was defined as zero pads per day after 12 months. Multivariate analysis was performed with SPSS.

Results: After a median follow-up of 25.2 mo., 9.7% (29/300) of men exhibited stress urinary incontinence (SUI). Fifteen (45/300) percent of all patients had type II DM and 28% (83/300) were obese or greater. The 3 variables that were independently predictive of SUI in multivariate analysis were age (mean: 60.3 in incontinent men vs. 57.4 yrs, $p < 0.04$) (Odds ratio (OR):3.25, 95% Confidence Intervals (CI): 1.45 to 7.31), BMI (28.9 vs. 27.5, $p < 0.05$) (OR:2.09, 95% CI:1.02 to 4.73), and a history of DM (31% of men with SUI had DM vs. 12.3%, $p < 0.03$) (OR:2.59, 95%CI:1.07 to 6.31). The risk of SUI increased linearly both with BMI: (BMI<30: 8.8%, BMI 30 to 34.5: 12.7%; BMI 35 to 39.9: 22.2%, and BMI \geq 40: 33.3%) and age: (age \leq 50: 2.3%, age 51 to 60: 6.8%, age 61 to 70: 16%, and age \geq 71: 25%) ($p < 0.05$). Diabetic patients exhibited a 20% risk of SUI compared with 7.8% in non-diabetics ($p < 0.03$), even in patients with a BMI \leq 25 (42.9% with DM vs. 4.1%, $p < 0.003$). No other variables adversely affected continence including PSA, preoperative SHIM score, IPSS, prostate weight, OR time, EBL, surgical margins, anastomotic leak, nerve-sparing status, pT stage, history of hypertension, or smoking.

Conclusions: Puerto Rican patients undergoing RP have more than double the incidence of DM of the general US population (15% vs. 7.1%) and a high rate of obesity (28%). While Puerto Rican patients who undergo RP who are not diabetic, have a BMI < 30 and are younger than 61 years have a rate of incontinence of 3.4%, this may increase to 14.5% with obesity (BMI \geq 30), 16.3% if older than 60 years, and beyond 20% with DM even in the absence of obesity. These are important data to discuss with patients in order to establish realistic expectations before surgery.