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(176) PRIOR INTRACAVERNOSAL INJECTION THERAPY AND PROSTATE CANCER TREATMENT ARE BOTH INDEPENDENTLY ASSOCIATED WITH INCREASED RISKS OF COMPLICATIONS IN MEN UNDERGOING INFLATABLE PENILE PROSTHESIS PLACEMENT

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Introduction: Intracavernosal injection (ICI) therapy for erectile dysfunction (ED) carries a risk of corporal fibrosis, potentially making placement of an inflatable penile prosthesis more difficult. Prostate cancer treatment may also induce corporal fibrosis.

Objective: To assess whether a history of ICI or prostate cancer treatment is associated with complications following IPP placement.

Methods: A retrospective cohort study of primary IPP cases from 2016-2021 across 16 institutions. Patients were stratified by history of ICI and between-group differences in risk factors were assessed. Multivariable logistic regression was used to assess for predictors of intraoperative complications, postoperative non-infectious complications and postoperative infection.

Results: A total of 2540 patients met inclusion criteria of which 781 (30.8%) had a history of ICI. Patients with a history of ICI tended to be older (mean 63 vs 64 years, $p=0.002$) and were more likely to have history of radical prostatectomy (21.0% vs. 32.1%, $p<0.001$) and/or radiation (5.51% vs 10.9%, $p<0.001$). On multivariable regression, a history of ICI, prostatectomy, and radiation were all significant predictors of intraoperative complications (OR 2.11, $p=0.03$; OR 2.27, $p=0.03$; OR 2.40, $p=0.04$, respectively). A history of ICI and patient age were predictors of non-infectious postoperative complications (OR 1.44, $p=0.02$, OR 1.02, $p=0.004$ respectively)). None of the variables were significant predictors of infection.

Conclusions: In men undergoing IPP placement, a history of ICI is associated with an increased risk of both intraoperative and postoperative, non-infectious complications. Prostate cancer treatment with radiation or surgery is independently associated with increased risk of intraoperative complications.

Disclosure: Any of the authors act as a consultant, employee or shareholder of an industry for: D.O. has served as a consultant for Coloplast, Intuitive Surgical, and Fidelis. P.P. has served as a consultant for Coloplast, Boston Scientific, and Urofill. M.S. has served as a consultant for Boston Scientific and Coloplast. J.S. has served as a consultant for Boston Scientific and Coloplast. F.A.Y. has served as a consultant for Coloplast, Cynosure, Antares Pharma, Clarus Pharmaceuticals, and Acerus Pharma. M.S.G. has served as a consultant for Coloplast. The other authors disclose no conflicts.

Demographics	Median (Q1, Q3)	No ICI (Median, Q1, Q3)	ICI (Median, Q1, Q3)	p
Age	63 (56, 70)	63 (55, 70)	64 (58, 70)	0.002
BMI	29 (26, 33)	29 (26.6 – 32.7)	29 (26, 32.2)	0.3
	Total (%)	No ICI (%)	ICI (%)	p
Intracavernosal Injection	781 (31)	-	-	-
Race				<0.001
White	1493 (59)	947 (54)	546 (70)	
Black/African American	750 (30)	624 (36)	126 (16)	
Asian	20 (0.8)	13 (0.7)	7 (0.9)	
Hispanic	171 (6.7)	128 (7.3)	43 (5.5)	
Other	69 (2.7)	38 (2.2)	31 (4)	
Unknown	37 (1.5)	9 (0.5)	28 (3.6)	
Diabetes	934 (37)	638 (36)	296 (38)	0.4
Hypertension	1313 (52)	928 (53)	385 (49)	0.11
Vasculopathy	602 (24)	400 (23)	202 (26)	0.1
Smoker	521 (21)	347 (20)	174 (22)	0.15
Peyronie's Disease	438 (18)	324 (19)	114 (15)	0.012
History of Radical Prostatectomy	621 (24)	370 (21)	251 (32)	<0.001
History of Pelvic Radiation	182 (7.2)	97 (5.5)	85 (11)	<0.001
Intraoperative Complications	36 (1.4)	17 (1)	19 (2.4)	0.006
Postoperative non-infectious complications	201 (9.9)	112 (8.9)	89 (12)	0.046
Postoperative infection	52 (2)	37 (2.1)	15 (1.9)	0.9

Table 1: Demographics

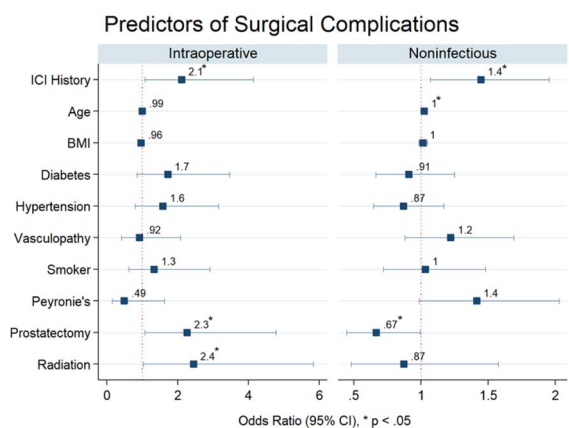


Figure 1: Regression Results. Forest plot depicting odds ratios and 95% confidence intervals with * indicating statistically significant predictors in the multivariable analysis of both intraoperative (left) and noninfectious postoperative (right) complications. ICI history was a significant positive predictor of complications in both contexts (OR 2.11, $p=0.03$, OR 1.44, $p=0.02$). Radical prostatectomy was a significant predictor of intraoperative complications (OR 2.11, $p=0.03$), and protective against postoperative noninfectious complications (OR 0.67, $p=0.046$).