Conclusion: Venous leakage is the most common vascular abnormality in our cohort of patients presenting with ED, much more than arterial insufficiency. Larger multi-institutional studies need to be done to validate our findings.

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BIDIRECTIONAL REFERRAL FOR ERECTILE DYSFUNCTION RISK STRATIFICATION IN YOUNG MEN

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Introduction: The strong association between erectile dysfunction (ED) and comorbidities such as cardiovascular disease is well-established in the field of men's health. The modern approach to ED, particularly in young men, takes its cues from the American Urological Association guideline on ED, which emphasizes screening for comorbidities such as diabetes and dyslipidemia. Urologists increasingly perform the type of risk stratification once reserved for primary care physicians (PCPs), especially since many men forego the types of annual wellness exams common in women's health care. What remains unclear is how often a man seeking urology consultation for ED already has an established relationship with a PCP.

Objective: Among patients seeking urology consultation for evaluation of ED, we aim to (1) characterize the proportion of men who have an established relationship with a PCP and (2) determine the proportion of men who establish PCP care after urology consultation. Ultimately, we seek to understand bidirectional referral patterns to improve quality of care.

Methods: With IRB approval, we retrospectively reviewed the medical records of men under the age of 40 being evaluated for ED at an academic men's health clinic during January 2016 through March 2018. Information regarding how patients were referred to our clinic, whether they had a PCP, established care with one after our clinic, and whether they had previously tried any treatments for ED were extracted.

Results: We identified 285 men who visited our clinic for evaluation and treatment of ED. The average age of our patients was 31 years old with a range of 17 to 40. Forty one percent (119) of patients established care with our clinic by self-referral. Thirty six percent (103) of patient did not have a PCP prior to visiting our clinic and only 21% (22) of these patients established care with a PCP afterwards at an average time of 22 months after the urology clinic visit. Of those that did have a PCP, 4.5% (13) had never seen their PCP, but contacted them in order to be referred to a urologist. Of the men seen in our clinic 40% (114) reported previously trying a mediation for ED and reported obtaining it from either a PCP, prior urologist, friend, or not specified.

Conclusions: Here we demonstrate that a significant number of young men with ED do not have a relationship with a PCP and seek direct assistance from a urologist for this issue. Prior research has shown that the initial workup for ED reveals underlying comorbidities in up to 15-20% of patients, and in some with normal labs, ED is the first marker of forthcoming cardiovascular disease. These findings highlight the importance of a thorough workup in men presenting for ED, and the value of strongly encouraging patients to establish care with a PCP upon presenting with a complaint of ED.

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098

TRENDS IN MARKETING, PRICING, AND DEPLOYMENT OF SHOCK WAVE THERAPY FOR ERECTILE DYSFUNCTION IN A MAJOR METROPOLITAN CITY

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Introduction: Due to increasing prevalence of erectile dysfunction (ED) and pronounced distress for patients, a market for low intensity shockwave therapy (LiSWT) has emerged. The LiSWT market segment has largely been dominated by GAINSWave, a practitioner database and marketing platform that has promoted the efficacy of LiSWT for ED despite limited evidence supporting its claim.

Objective: To evaluate trends in marketing and implementation of LiSWT as a restorative treatment for ED in a large metropolitan area by characterizing cost to patients, provider credentials, and treatment protocols.

Methods: LiSWT providers in the Los Angeles metropolitan area were identified using standardized internet search. Search queries included: "Shockwave therapy for erectile dysfunction Los Angeles"; "Shockwave therapy for ED Los Angeles"; "GainsWave Los Angeles." All clinics advertising shock wave therapy for ED within the boundaries of Los Angeles County were included. We solicited information from each clinic by telephone, with the goal of identifying the provider administering the treatment, the pricing for the treatment, and the duration of treatment.

Results: Twenty-one clinics offered LiSWT for ED. Comprehensive information was available for 16 of the 21 clinics (Table 1). 31% of providers had formal urologic training. 38% of providers offering LiSWT were not physicians. The average price of LiSWT was $4156 per treatment course (6-12 sessions), with a range of $400 to $7000. Treatment duration ranged from one to indefinite courses based on individual patient circumstance. 11 of the 16 clinics offered PRP injections in conjunction with LiSWT.

Conclusions: LiSWT as a restorative therapy for ED in Los Angeles County is performed primarily by non-urologists and is not standardized. Only five providers offering LiSWT completed training in urology. None were fellowship trained in andrology or sexual medicine. Cost varied considerably among providers, as did treatment regimens. Across all clinics, direct-to-consumer marketing is used to target distressed men, although often with contradicting claims about the mechanism of therapy and the rates of cure. Currently, the SMSNA and AUA classify LiSWT as an experimental

Table 1. Providers offering extracorporeal shockwave therapy for erectile dysfunction in Los Angeles, CA

Provider	Specialty	Qty.
MD/DO		
	Urologist	5
	Family Medicine	4
	OBGYN	1
Other provider		
	Physician's Assistant	2
	Chiropractor	1
	Registered Nurse	1
	Nurse practitioner	1
	Naturopath (ND)	1

therapy, indicating that patients should not be charged for receiving it. This study highlights concerning trends in a major metropolitan market for an experimental therapy, given the substantial financial impact for patients and inconsistent credentials among providers. Further, these findings suggest that patients are frequently seeking care for ED from non-urologists.

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ERECTILE DYSFUNCTION AND BODY-RELATED EMOTIONS IN MORBID OBESE MEN BEFORE UNDERGOING BARIATRIC SURGERY: EFIBAR STUDY

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Introduction: Obesity is a chronic illness that deteriorates the quality of life of people who suffer from it and is one of the main risk factors for erectile dysfunction (ED). In addition, obesity is often related to a deterioration of body image. The use of weight reduction techniques, such as bariatric surgery (BS), have been shown to improve erectile function in men with obesity. However, the evidence related to deterioration of body image and ED in this population before undergoing the surgery is still scarce.

Objective: To evaluate the differences in body-related emotions between morbid obese men with ED and those without ED before undergoing bariatric surgery.

Methods: A total of 16 men (age 44.8; SD 11.5) who met the criteria for BS participated in this study. Participants completed the International Index of Erectile Function (IIEF) and the Body and Appearance Self-Conscious Emotions Scale (BASES) 10-15 days before BS (mean BMI 49.0; SD 8.4). IIEF evaluates the presence and severity of ED through 5 domains: erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction. BASES evaluates body and appearance-related shame, guilt, authentic pride and hubristic pride. Items from both questionnaires were rated on a 5-point Likert-type scale, ranging from 1 (never) to 5 (always). A higher score in IIEF indicates a higher erectile function, while higher responses in BASES indicate a higher level of each of the aforementioned domains.

Results: 62.5% of men presented ED, being the proportions as follows: 18.8% men moderate ED, 12.5% men mild to moderate ED, and 31.3% men mild ED. Pearson's correlation coefficients between the different domains of body-related emotions and the severity of ED showed small effect sizes on shame (r= 0.03), hubristic pride (r= 0.10), and guilt (r= 0.15), while on authentic pride it was slightly larger (r= 0.35). On the other hand, men with ED presented a greater authentic pride (mean 10.0, SD 5.2) and hubristic pride (mean 6.7, SD 2.2) than those without ED (authentic pride: mean 5.5, SD 2.1; hubristic pride: mean 4.3, SD 0.5), with a small effect size (0.2 and 0.3, respectively).

Conclusions: Morbid obese men with ED present greater authentic and hubristic pride than those without ED, although the severity of ED seems to have a slight association in some of the domains studied. These Results need to be corroborated by other researches with larger samples.

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PIEZO 1 MECHANOSENSOR IS IMPAIRED IN THE PUDENDAL ARTERY AND CORPUS CAVERNOSUM OF SPONTANEOUSLY HYPERTENSIVE RATS

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Introduction: Erectile dysfunction (ED) is highly associated with risk factors for cardiovascular diseases, including obesity, diabetes and arterial hypertension. The cavernous arteries respond to shear-stress flow mediated vasodilation and this response is decreased in patients with either neurogenic and vasculogenic ED. Piezo1 channel is a non-selective stretch-activated ion channel which has been described to be expressed in the vasculature and it senses shear stress. Piezo1 channel has been shown to induce endothelial nitric oxide synthase activation to induce vasodilation whereas Piezo1 deficiency contributes to the development of arterial remodeling in hypertension.

Objective: The aim of this work was to evaluate if the activation of the mechanosensor Piezo1 channel plays a role in the relaxation of the arteries and the cavernous smooth muscle of rats and if the activity of the Piezo1 channel is impaired in the pudendal artery and corpus cavernosum of hypertensive rats, contributing to the development of erectile dysfunction.

Methods: Corpus cavernosum and pudendal artery from male Wistar and spontaneously hypertensive rats [SHR (11-month old)] were removed, cleaned and mounted in wire myographs. Concentration response-curves to Yoda1 (chemical agonist for Piezo1 channel) were performed in corpus cavernosum and pudendal artery in the presence or absence of nitric oxide synthase (NOS) inhibitor (L-NAME, 100 μM, 30 min).

Results: Yoda1 causes concentration dependent relaxation in the corpus cavernosum and pudendal artery, which were significantly lower for SHR animals [E_{max} 14.80 ± 6.47 vs. 37.32 ± 2.10] (corpus cavernosum)] and [E_{max} 47.34 ± 7.59 vs. 25.52 ± 6.43 (pudendal artery)]. Further, acute NOS inhibition impairs corpus cavernosum relaxation to Yoda 1.

Conclusion: In conclusion, our Results show that Piezo1 mechanosensor channels are expressed in the cavernous tissue and pudendal artery and may play a role for the erectile function. Piezo1 channel could be a new therapeutic target for the treatment of refractory ED.

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