Methods: Prospective data was collected for 20 consecutive men undergoing placement of the Advance Male Sling for non-radical prostatectomy incontinence. Baseline patient data and validated measures of incontinence and sexual function were collected.

Results: Primary outcomes consisted of validated patient questionnaires focused on erectile function and incontinence; the IIEF full version, EHS, UCLA Rand Prostate Cancer Index, and EDITS and continence measures were administered pre- and post-male sling surgery. For 20 men (median follow-up 12 months), 80% were completely dry, one patient noted no change, and 3 were improved but used 1-2 pads/day. There were no meaningful improvements in erectile rigidity/function measures; however, sexual satisfaction measures across outcome measures were markedly increased.

Conclusion: The Advance Male Sling represents a safe and efficacious treatment for mild to moderate incontinence following radical prostatectomy, and for men who are sexually active, consistently result in improvements of sexual function domain scores. However, improvements for erectile rigidity/function were not consistently observed.

Disclosure: Work supported by industry: no.

PD-042

CIRCULATING SOLUBLE ADHESION MOLECULES VCAM-1 AND E-SELECTIN, BUT NOT ICAM-1 DISCRIMINATE ENDOTHELIAL INJURY IN PATIENTS WITH VASCULOGENIC ERECTILE DYSFUNCTION AND ANGIOGRAPHICALLY DOCUMENTED CORONARY ARTERY DISEASE

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Objective: Erectile dysfunction (ED) is related to generalized vascular disease by an impairment of endothelial function and symptoms of ED are probably to precede cardiovascular events. Intercellular adhesion molecule-1 (ICAM-1), vascular cell adhesion molecule-1 (VCAM-1) and E-selectin may exert a relevant role in the pathogenesis of atherosclerosis. The association of circulating VCAM-1, ICAM-1 and E-selectin with ED and coronary artery disease (CAD) has not been investigated.

Material and Methods: Plasma levels of VCAM-1, ICAM-1 and E-selectin were measured in 39 patients with ED and angiographically documented CAD, 39 ED patients without clinical and exercise stress evidence for CAD, and 31 healthy volunteers. ED was diagnosed according to history and score of the 5-item Sexual Health Inventory for Men (SHIM). A cutoff value <21.

Results: All parameters correlated negatively with SHIM score (ICAM-1; r = -0.29, P < 0.001, VCAM-1; r = -0.35, P < 0.001 and E-Selectin: r = -0.23, P < 0.01) after adjusting for age, body mass index, mean pressure, lipid profile and hsCRP and IL-6 as markers of low grade inflammation. Patients with documented CAD exhibited significant elevation of VCAM-1 and E-selectin concentrations as compared to subjects with ED and normal coronary arteries and healthy controls (525 ± 227 vs 252 ± 80 and 110 ± 20, ns, P = 0.001 and 69 ± 29 vs 50 ± 22 and 29 ± 20 ng/ml, P = 0.006, respectively). However, ICAM-1 levels did not differ between the 3 groups (321 ± 65 vs 311 ± 40 vs 218 ± 47 ng/ml, P = 0.50).

Conclusions: Soluble adhesion molecules are associated with the presence and severity of penile vascular disease; however, these markers are not uniformly increased in patients with ED and documented CAD as compared to those of patients without CAD. This finding may be related to the pathophysiology of ED and may have implications for the cardiovascular risk in these patients.

Disclosure: Work supported by industry: no.

PD-043

INCREASED ENDOTHELIAL APOPTOTIC CELL DENSITY IN HUMAN DIABETIC ERECTILE TISSUE – COMPARISON WITH CLINICAL DATA

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Objective: Erectile dysfunction (ED) is a common complication of diabetes. Endothelial cell (EC) dysfunction is one of the main mechanisms of diabetic ED. However, an evaluation of loss of ED was never assessed in human diabetic corpus cavernosum (CC). We aim to identify and quantify apoptotic cells in human diabetic and normal erectile tissue and to compare these results with each patient clinical data and erection status.

Material and Methods: Eighteen cavernosal samples were collected, 13 from diabetes with ED and 5 from non-diabetic individuals. Cavernosal structure and cell proliferation status were evaluated by immunohistochemistry. Tissue integrity was assessed by TUNEL assay, an index of Apoptotic Cell Density (ACD) estimated. Further, we were able to identify the threshold between ACD values and cavernosal tissue functionality, as assessed by PNOT and vasoreactive ICI.

Results: Non-diabetic samples presented few scattered cells in apoptosis and an ACD of 7.15 ± 0.44 (Mean apoptotic cells/tissue area mm² ± Standard Error). The diabetic group presented an increased ACD of 16.17 ± 1.57, and apoptotic cells were located specifically at vascular sites. Rehabilitation of these endothelial lesions seemed impaired, as no evidence of EC proliferation was observed. Further, higher ACD in diabetic individuals correlated to poor response to PNOT and to ICI.

Conclusions: We provided evidence for the first time that loss of cavernosal EC integrity is a crucial factor involved in diabetic ED. Further, we were able to establish a threshold between ACD values and cavernosal tissue functionality, as assessed by PNOT and vasoreactive ICI.

Disclosure: Work supported by industry: no.

PD-044

TEN YEAR CORONARY HEART DISEASE RISK OF MEN WITH ERECTILE DYSFUNCTION

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Objective: To determine the 10-year coronary heart disease frequency in men with ED and to examine the association between them.

Methods: 1667 Malaysian men aged ≥40 years were randomly selected via the electoral roll. 1046 (63%) responded. Demographic data, lifestyle parameters, self-reported chronic diseases, International Index for Erectile Function (IIEF-5) to measure erectile dysfunction (ED) were administered. Fasting blood lipids and blood pressure were measured.