905

Reynolds W S[1], Koski M[1], Broughton G[1], Enemchukwu E[1], Milam D[1], Scarpero H[1], Penson D[1], Dmochowski R[1], Kaufman M[1]

1. *Vanderbilt University Medical Center*

CARDIOVASCULAR RISK FACTORS AND DISEASE IN WOMEN WITH OVERACTIVE BLADDER "WET" VS "DRY"

Hypothesis / aims of study

As part of an ongoing investigation studying the potential relationship between overactive bladder (OAB) and cardiovascular disease (CVD), the prevalence of CVD and risk factors were determined in female OAB patients with incontinence (OAB wet) compared to those without incontinence (OAB dry).

Study design, materials and methods

Retrospective review of female patients presenting with OAB in 2008-2009 analyzing demographics, CVD risks and comorbidities, and symptoms and excluding patients with prior urologic surgery, recurrent UTI, neurologic disease, or mixed urinary symptoms. Patients were characterized as "wet" (OABW) if they reported urinary incontinence and "dry" (OABD) if they did not. Manifestations of CVD were considered coronary artery disease (CAD), cerebrovascular disease (CVA), and peripheral vascular disease (PVD); CVD risk factors included age ≥65, family history of CAD, smoking, hypertension (HTN), diabetes mellitus (DM), dyslipidemia (DysL), and body mass index (BMI) ≥ 30. Metabolic syndrome was defined as any 3 of preceding 4 risk factors.

Results

66 OABD and 58 OABW patients were included with mean ages 44.4 (range 14-80) and 57.6 (range 25-85) [p<0.0001] and mean BMI 25.0 (range 17.5-49.9) and 28.6 (range 17.3-42.6) [p=0.018], respectively. 7 (11%) OABD patients reported CVD manifestations vs. 9 (16%) of OABW patients. Of CVD risk factors, OABW patients had higher rates of age≥ 65 (33% vs 12% OABD, p=0.002), smoking (57% vs 23% OABD, p=NS), BMI≥30 (27% vs 14% OABD, p=0.049), DM (16% vs 8% OABD, p=NS), DysL (28% vs 11% OABD, p=0.02) and HTN (45% vs 25% OABD, p=0.02). Family history of CAD was more common in OABD (52% vs 36%, p=NS). 30% of OABD patients had no CVD risk factors vs. 3% of OABW patients (p=0.0001); however, 38% of OABD patients had ≥2 risk factors vs. 69% of OABW patients (p=0.0006). Prevalence of metabolic syndrome was not significantly different (3% OABD vs 9% OABW).

Interpretation of results

Results of this pilot study comparing OAB wet and OAB dry patients demonstrate a higher prevalence of CVD manifestations and risk factors in OAB wet patients. The prevalences of age ≥ 65, smoking, BMI≥30, DM, DysL and HTN were all higher in OAB wet patients. A greater number of OAB dry patients had 0 risk factors while a greater proportion of OAB wet patients had ≥2 risk factors.

Concluding message

Differences in CVD and risk factors appear to exist between OAB dry and OAB wet patients. Greater numbers of patients are needed to substantiate these findings and to appropriately power the study.

Specify source of funding or grant	**None**
Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Vanderbilt University Institutional Review Board**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**