Introduction

Urodynamics (UDS) can be non-diagnostic due to failure to reproduce symptoms (upto 46%) or false negative results for detrusor overactivity (DO) (upto 50%). Ambulatory Urodynamic Studies (AUDS) are thought to mitigate the non-physiological nature of standard UDS. Studies have shown mixed results: some showing no additional benefit over standard UDS while others reporting increased sensitivity. Our aim was to evaluate diagnostic outcomes with AUDS in patients who had previous UDS.

Methods

A prospective database of AUDS patients was maintained, including local and regional referrals. The reason for referral, previous UDS findings and final AUDS diagnosis was obtained. The procedure is performed by an AUDS specialist nurse and interpreted by FNUU consultants.

Results

We performed 52 AUDS procedures last year, 29 (56%) were external referrals. The most common reason for referral was a non-diagnostic UDS test (48%), others included failure to demonstrate DO (40%) and failure to demonstrate urodynamic stress incontinence (USI) (13%). AUDS identified a cause for the patient’s symptoms in 85% (n=44), 2 patients were non-compliant with the test and remaining were normal. Four patients with a non-diagnostic UDS had normal AUDS, 8 were diagnosed with IDO, 8 with USI, and remaining had mixed UI. 57% (n=12/21) of patients with no DO on standard UDS had proven DO on AUDS, 6 had only USI similar to the original test and remaining were normal.

Conclusion

In our centre AUDS reproduced the patients’ symptoms in over 85% cases. 81% of patients with previous non-diagnostic study obtained a diagnosis for their symptoms and 57% patients with a failure to show DO for storage symptoms had DO on AUDS. Hence, AUDS can be a useful test in selected cases.