



# AMBULATORY URODYNAMIC STUDY IN FEMALES WITH LOWER URINARY TRACT SYMPTOMS- A PROSPECTIVE OBSERVATIONAL STUDY (Abstract-568)



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## INTRODUCTION

- EPIC study prevalence of Lower Urinary tract symptoms (LUTS) in females is 66% - Nocturia (54.5%), Urge incontinence was 13.1% and Urgency 2.8% (1).
- Ambulatory Urodynamic Study (AUDS) detected an underlying pathophysiology of urinary incontinence (77.3%) in significantly more women than the conventional urodynamic study improved the detection of Overactive bladder (compared with conventional UDS which is a more common cause of LUTD in females).

## AIMS AND OBJECTIVES

**Aim:** -  
To Study Role of Ambulatory urodynamics (AUDS) and Video Urodynamics (VUDS) in females with lower urinary tract symptoms

- Objectives:**
- To compare treatment outcomes using Ambulatory and Video Urodynamic Study as Diagnostic modalities in Female Lower Urinary tract symptoms.
  - To study Patient reported outcomes using Global Anxiety Visual analogue scale

## MATERIALS AND METHODS

- Prospective Observational Study
- All Female patients with lower urinary tract symptoms undergoing UDS were evaluated using detailed history and examination from July 2023 till February 2024.
- Patients allocated to either arm- VUDS or AUDS with MCU.
- Pre and post UDS diagnosis and anxiety during UDS (assessed using Global anxiety Visual analogue scale- GA VAS) were compared.
- Patients were started on treatment based on Post UDS diagnosis.
- Post treatment follow up was done after 1 month with Uroflowmetry with PVR, IPSS, ICIQ- FLUTS score.

## RESULTS

- 30 females with LUTS undergoing UDS were included in study- 15 AUDS+ MCU and 15 VUDS

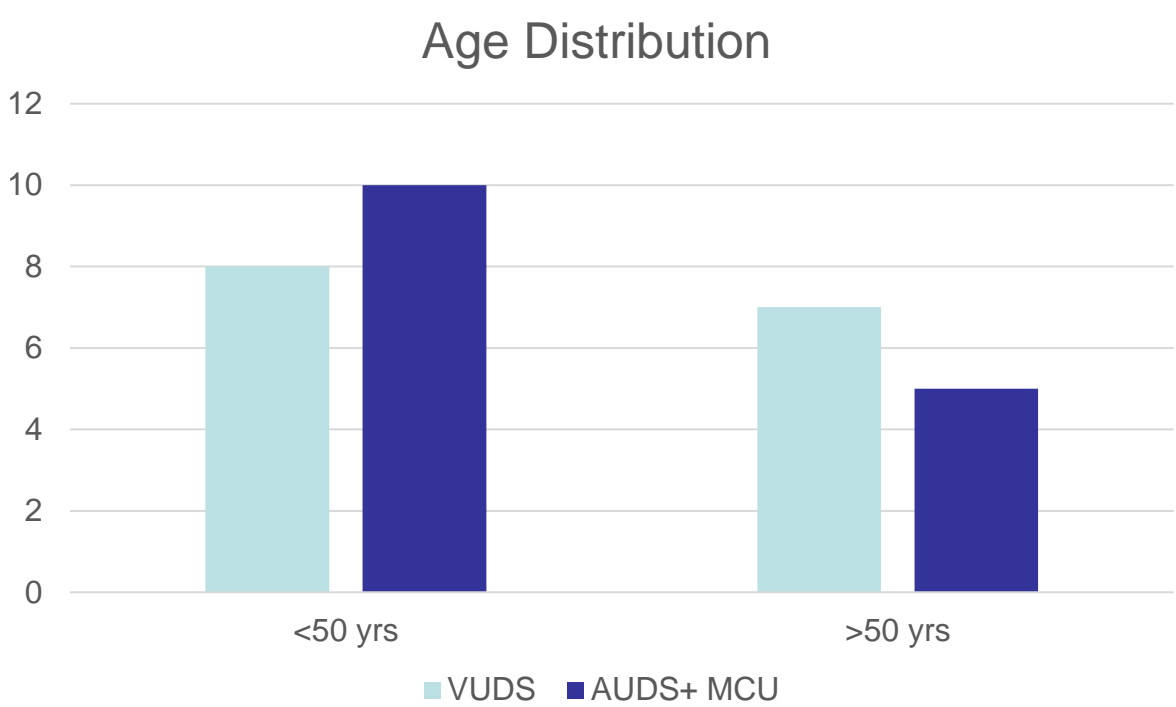


Table1- Pre UDS Diagnosis

	AUDS + MCU	VUDS
Bladder Outlet obstruction	4	4
Neurogenic Bladder	2	2
Overactive Bladder	4	2
Underactive Bladder	3	3
Mixed Urinary Incontinence	2	4

## RESULTS

- Overall 70% patients- Symptomatic improvement (1 month follow up) in AUDS +MCU whereas it was 75% in VUDS group.

Table 2- Post AUDS+ MCU – 1 month follow up

	Pre AUDS	Post AUDS	Average Change	P Value
IPSS	21.8	17.25	4.55	0.008
ICIQ- FLUTS	18.4	14.5	3.9	0.005
VOIDING EFFICIENCY	70.5%	75.25%	1.75%	0.018
PVR	140	116	24	0.126

Table 3- Post VUDS – 1 month follow up

	PRE VUDS	POST VUDS	Average Change	P Value
IPSS	18.91	13	5.91	0.002
ICIQ- FLUTS	15.25	10.57	4.68	0.001
VOIDING EFFICIENCY	77.57%	79.5%	1.93%	0.010
PVR	160	100	60	0.058

Table 3- AUDS and VUDS comparison- Post 1 month follow up

	Average Change (Post AUDS)	Average Change (Post VUDS)	P Value
IPSS	4.55	5.91	0.138
ICIQ- FLUTS	3.9	4.68	0.087
VOIDING EFFICIENCY	1.75%	1.93%	0.075
PVR	24	60	0.058
ANXIETY	4.6	8.4	0.038

## DISCUSSION

- AUDS - **additional or change in diagnosis 33%** - change in management of patients (Retrospective analysis showed AUDS- 60% change in diagnosis)(2)
- Rate of **DO detection** in case of AUDS - **83%** (74% detection rate- Retrospective analysis)(2)
- Patient undergoing AUDS experienced **less anxiety** compared to those undergoing VUDS according to GA VAS
- In our study no there was no statistical significant difference in improvement in IPSS, ICIQ- LUTS, Voiding efficiency and PVR post 1 month follow up following UDS directed treatment
- 40 % of patients in AUDS group and 20% in VUDS group study needed to be repeated – Technical failure (catheter expulsion, failure of patient understanding)
- Average duration of VUDS- 80minutes and AUDS-220 minutes

## CONCLUSIONS

Ambulatory Urodynamics is a reasonable alternative to VUDS in females with lower urinary tract symptoms with comparable results and more acceptability to patients, however its use is not without limitations.

## REFERENCES

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