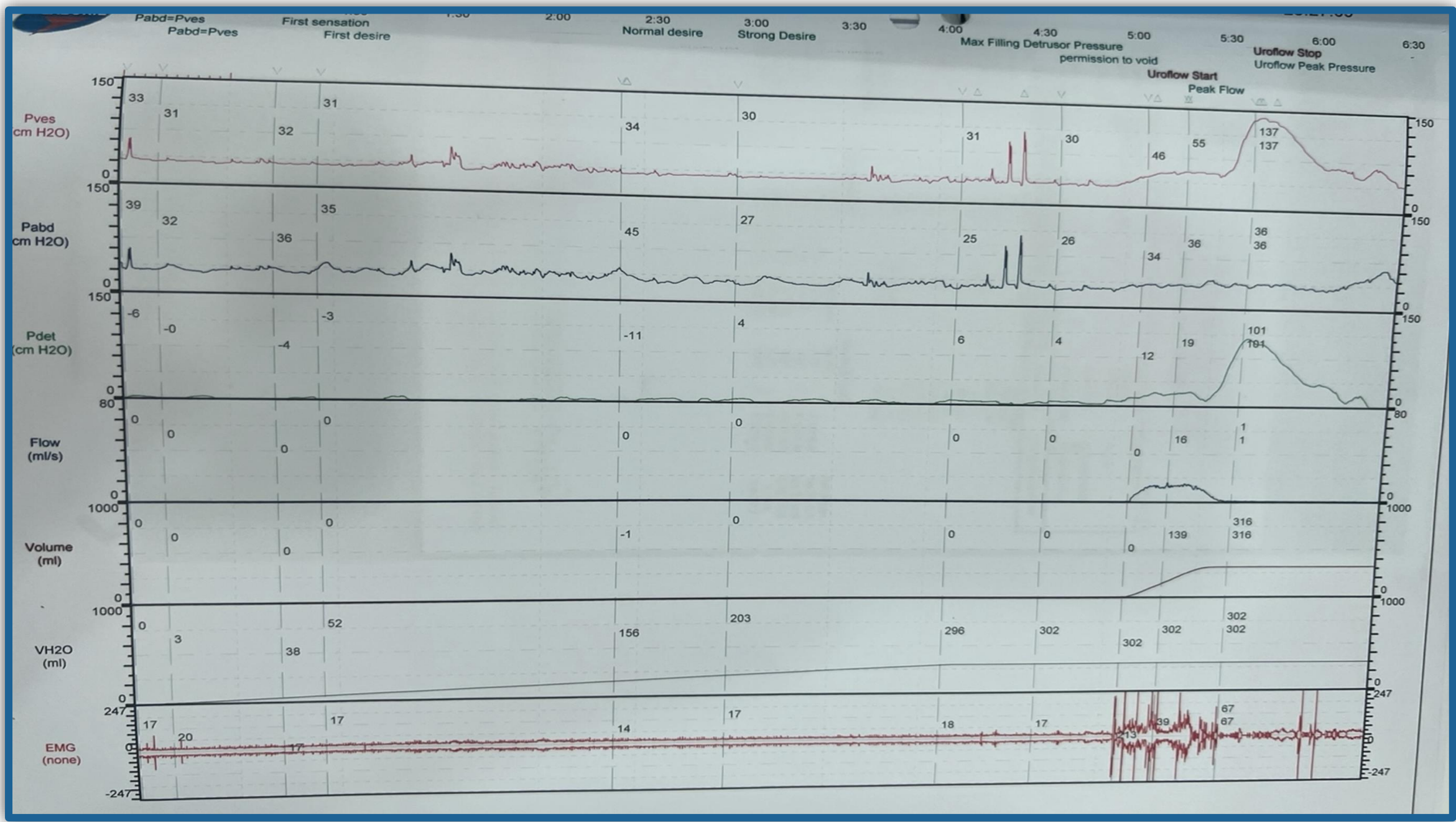




# SHOULD AFTER-CONTRACTIONS DURING URODYNAMICS BE CONSIDERED PATHOGNOMONIC FOR OVERACTIVE BLADDER SYNDROME?

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## Introduction

Detrusor after contraction (AC) is defined as an increase in Pdet after cessation of voiding detrusor contraction in the absence of urinary flow when bladder is nearly empty.(1) It is thought to be an ill-defined urodynamic finding, and thus the clinical and its symptomatic significance has also been vague. (2) AC has been linked to be associated with detrusor overactivity, bladder outlet obstruction, detrusor sphincter dyssynergia or, otherwise a urodynamically normal bladder with AC being a normal physiological finding. Therefore, there is an absence of a standardized definition, poor understanding of the pathophysiology and unclear clinical relevance. In this study, we aim to analyse the association of AC with other pathologies and its clinical impact and to establish that AC during urodynamics are pathognomonic for Overactive bladder (OAB).

## Results

Out of 327 patients, 230 (70.3%) patients found to have detrusor AC with different severity in which 165 (71.2%) patients were found to have detrusor AC with detrusor overactivity and 67 (29.7%) patients were found to have only detrusor AC with trivial post voiding residual The percentage of patients showing this finding was different according to the main complaint. In patients with urinary retention it was 5 out of 10 (50%), in patients with predominantly failure to empty symptoms, it was 16 out of 31 (51%), in patients with LUTS of mixed in nature, it was 81 out of 112 (72%) and 125 out of 142 (88%) in patients with failure to store LUTS Interestingly, from a clinical point of view, we found 48 patients out of 67 (71.5%) in the AC only group to report classic complaints of severe pain and pressure at the end of voiding, incomplete emptying and the need to have a second voiding.

## Methods and Materials

•A retrospective cohort study We retrospectively analyzed 327 patients, by going through the urodynamics records of male and female patients presenting with Lower urinary tract symptoms of mixed in nature in four different centers. The patients were heterogenous in diagnosis ranging from bladder outlet obstruction, true and pseudo DSD, Overactive bladder and urinary incontinence diagnosed by urodynamics. Patients were divided to either AC without detrusor overactivity and patients with both detrusor overactivity and detrusor AC.

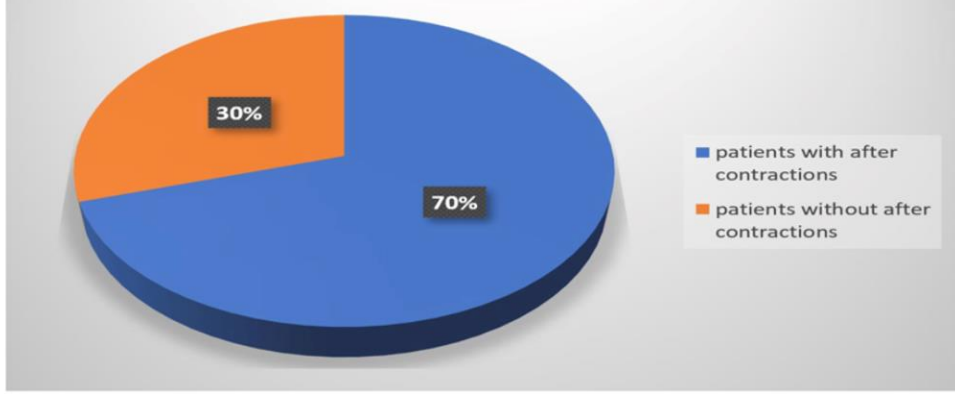
## Discussion

We report the finding of aftercontractions and characters of patients indicating that detrusor after contractions during urodynamic can be considered pathognomonic for overactive bladder according to our study cohort and results. Therefore, it can be an eye opener for more researches to delineate its clinical significance.

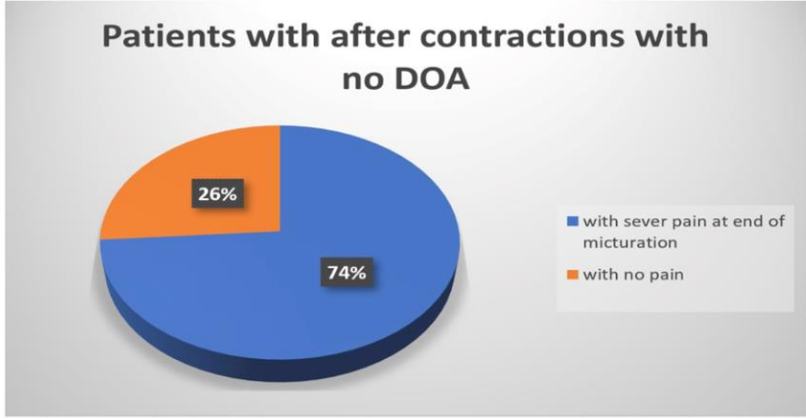
## Conclusions

We found AC during urodynamics to be common either alone or in combination with detrusor overactivity in a large cohort of patients with failure to store LUTS. Furthermore, large percentage of patients presenting with the triadic symptoms of severe pain and pressure at the end of voiding, incomplete emptying and the need to have a second voiding were found to have AC only in the presence of trivial post voiding residual that could make it a classic presentation for the presence of AC. Further studies are warranted in order to delineate the clinical significance of our findings. We report the finding of aftercontractions and characters of patients showing that the detrusor after contractions in urodynamic are pathognomonic for overactive bladder according to our study results and it can be an opening door for more researches to delineate its clinical significance.

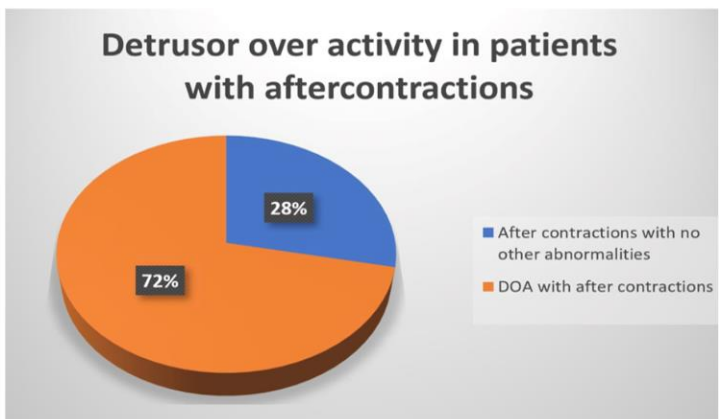
Total number of patients



Patients with after contractions with no DOA



Detrusor over activity in patients with aftercontractions



## References

1. Detrusor afterContraction - Is it Pathological Shivalingaiah M , Nischith D Souza , Ninad Tamboli <https://www.ajournals.com/index.php/ajmr/article/download/849/629/>
2. 1. Detrusor after contractions in men with lower urinary tract symptoms: Myth or reality? <https://www.sciencedirect.com/science/article/pii/S2090598X1300084>