



Reply



Dear Editor,

I and my colleagues appreciate the effort and keen interest of Dr. FK Lee et al. on our paper.¹ They not only give us precious comments but also review the well-known OAB treatment algorithm in the letter.² OAB treatment remains suboptimal effect even if combination therapy is adopted. The inconclusive results^{3–6} of distinct characteristics between OAB women with (DO group) and without DO (BO group) prompt us to conduct this study to find some way to improve the therapeutic outcome. Herein, we compare the differences between clinical characteristics and urodynamic (UDS) perception volume with filling cystometry set at a relatively lower (more physiological) filling rate (20 ml/min).

We are glad to have a chance to respond to the letter supported by abundant grants. Consequently, we have to clarify the questions and disapprovals raised by them as possible. Both bladder oversensitivity and detrusor overactivity are diagnoses made by UDS investigations.⁷ First desire to void (FDV) is the only UDS perception volume with significant and independent correlation with DO in our multivariate regression models.¹ There is also a significant difference between the first desire to void (FDV) volumes of the two groups (117.47 ± 21.68 ml in the BO group vs. 135.23 ± 22.88 ml in the DO group; $p < 0.05$). The FDV cut-off value for predicting DO is determined by using a receiver operating characteristic (ROC) curve. Area under the curve (AUC) is 0.702 ($p < 0.005$, 95% CI 0.626–0.779); in addition, an FDV cut-off value of 127 ml (sensitivity 70.6%, specificity 59.1%) is found to be an acceptable predictive value for detecting DO. However, Dr. FK Lee et al. question the clinical meaning of approximate 20 ml FDV difference between two groups in conventional UDS during clinical practice.² To demonstrate the true distinctiveness between these two groups in UDS, we set up a compromised filling rate (20 ml/min) according to time-economics and physiology. The difference of 20 ml in 20 ml/min filling rate seems to be proportionally equal to 50 ml in 50 ml/min and 100 ml in 100 ml/min respectively. Is 50 ml or 100 ml difference meaningless for and neglected by investigators in conventional UDS? Furthermore, we have reviewed in detail about the association between filling rate and the variance of DO in the 4th paragraph in discussion. The limitations of UDS in our study are also disclosed in the discussion. It may be helpful to fully understand our reasoning and logics.

By the way, low-compliance bladder is associated with several lower urinary tract dysfunctions, such as myelomeningocele, spinal cord injury, peripheral nerve injury after pelvic surgery and post-radiation fibrosis; however, the strict normal values of bladder compliance have not been defined.⁸ I cannot figure out the concept in the letter that OAB with bladder oversensitivity and OAB with detrusor overactivity are considered as the low compliance urinary bladder.²

Indeed, no matter how we prove the discrepancy between BO and DO groups in histological, imagical, biochemical, psychological and therapeutic aspects, it seems no different treatment strategy between these two distinct entities “at present time”. Nevertheless, it does not hinder to explore the possible pathophysiological difference in research. Our study is merely a descriptive study with small samples size in single center. In general, to identify areas for further research and help in planning resource allocation for assessment are primary reasons for conduct descriptive study. As OAB treatment, researches also need step approach progressively. Sustainable studies in the future could possibly shed light on the inconclusiveness. Einstein said: If at first, the idea is not absurd, then there is no hope for it.

References

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Sung-Lang Chen*

School of Medicine, Chung Shan Medical University, Taichung, Taiwan, ROC

Department of Urology, Chung Shan Medical University Hospital, Taichung, Taiwan, ROC

*Corresponding author. Dr. Sung-Lang Chen, Department of Urology, Chung Shan Medical University Hospital, 110, Section 1, Chien-Kuo North Road, Taichung 402, Taiwan, ROC.

E-mail address: urologychen@gmail.com (S.-L. Chen).

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