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# Analysis of correlation and agreement between abdominal leak point pressure and the degree of urethral mobility in women with stress urinary incontinence

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## DISCLOSURE

The authors declare no conflict of interest.

## INTRODUCTION AND OBJECTIVES

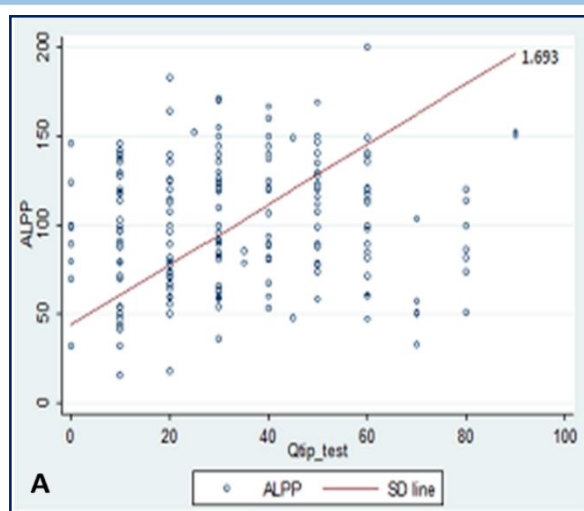
The Q-tip test may aid in the classification of patients with stress urinary incontinence (SUI), but its ability to predict urodynamic findings is unknown. We aim to assess the level of correlation and agreement between abdominal leak point pressures (ALPP) and the degree of urethral mobility in females with SUI.

## MATERIALS AND METHODS

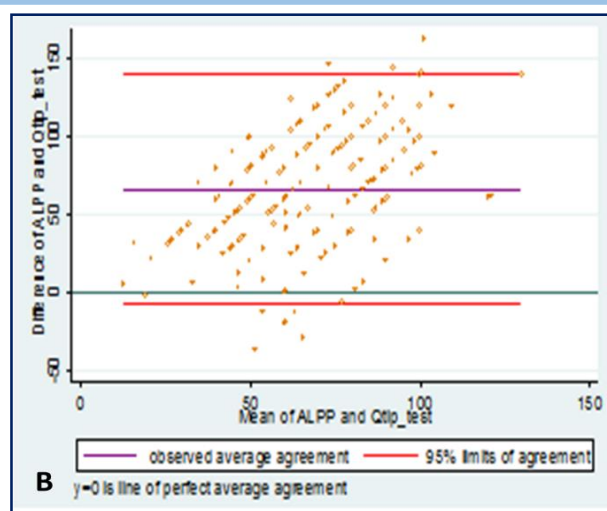
An observational prospective study was conducted. Patients with SUI and  $\geq 18$  years old who attended our Incontinence Care Center between 2014 and 2016 were assessed using the ICIQ-SF, the Q-tip test and urodynamic studies (UDS). To evaluate association between continuous variables, a Pearson correlation coefficient, reduced major axis regression and Bland-Altman plots were used. For categorical variables, we used Spearman correlation and Cohen's kappa coefficient.

## RESULTS

A total of 221 patients were included. Median age was 56 (range 18-92). Incontinence was rated as moderate and severe by 65.3% and 6.8% patients, respectively. Median ICIQ-SF score was 14 (range 0-21). Regarding urethral function, median of urethral mobility was 30 degrees (range 0-90) and mean ALPP 99.3 (SD 34.7, range 15-200). Although the analysis showed a 61.75% and 51.61% agreement between ALPP and urethral mobility and ALPP and the composite variable, respectively, the correlations were low ( $r=0.155$  and  $r_s=-0.053$ ). Similarly, the concordances were very poor ( $\rho_c=0.036$  and  $k=0.116$ ).



**Figure A.** Reduced major axis regression of ALPP versus the Q-tip test. A linear relationship wasn't found when a visual analysis of the two tests was performed.



**Figure B.** Bland-Altman plots of ALPP versus the Q-tip test. Purple line in B indicate mean difference, whereas red lines show limits of agreement. Mean (limits of agreement) was 66.6 (-6.9-140.1).

## CONCLUSIONS

Neither the degree of urethral mobility nor the composite variable are equivalent to the ALPP measure in UDS, suggesting the latter cannot be predicted using the Q-tip test or the ICIQ-SF for classifying patients with SUI.