

ANALYSIS OF CORRELATION AND AGREEMENT BETWEEN ABDOMINAL LEAK POINT PRESSURE AND THE DEGREE OF URETHRAL MOBILITY USING THE Q-TIP TEST IN WOMEN WITH STRESS URINARY INCONTINENCE

Hypothesis / aims of study

The Q-tip test may aid in the classification of patients with stress urinary incontinence (SUI) [1], but its ability to predict urodynamic findings is not clear. We aimed to assess the level of correlation and agreement between the abdominal leak point pressure (ALPP) and the degree of urethral mobility using the Q-tip test in females with stress urinary incontinence (SUI).

Study design, materials and methods

An observational prospective study was conducted. Patients with SUI and ≥ 18 years old who attended our Incontinence Care Center were included. Patients were assessed using the ICIQ-SF, the Q-tip test and urodynamic studies (UDS). We created a composite variable using urethral mobility < 30 and ICIQ-SF ≥ 10 . To evaluate association between continuous variables, Lin's concordance correlation (ρ_c), Pearson correlation (r), reduced major axis regression and Bland-Altman plots were used. For categorical variables, we used Spearman correlation (r_s) and Cohen's kappa coefficient (k).

Results

A total of 221 patients were included. Median age was 56 (range 18-92) years old. Incontinence was rated as moderate and severe by 65.3% and 6.8% patients, respectively. 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 $k = 0.116$).

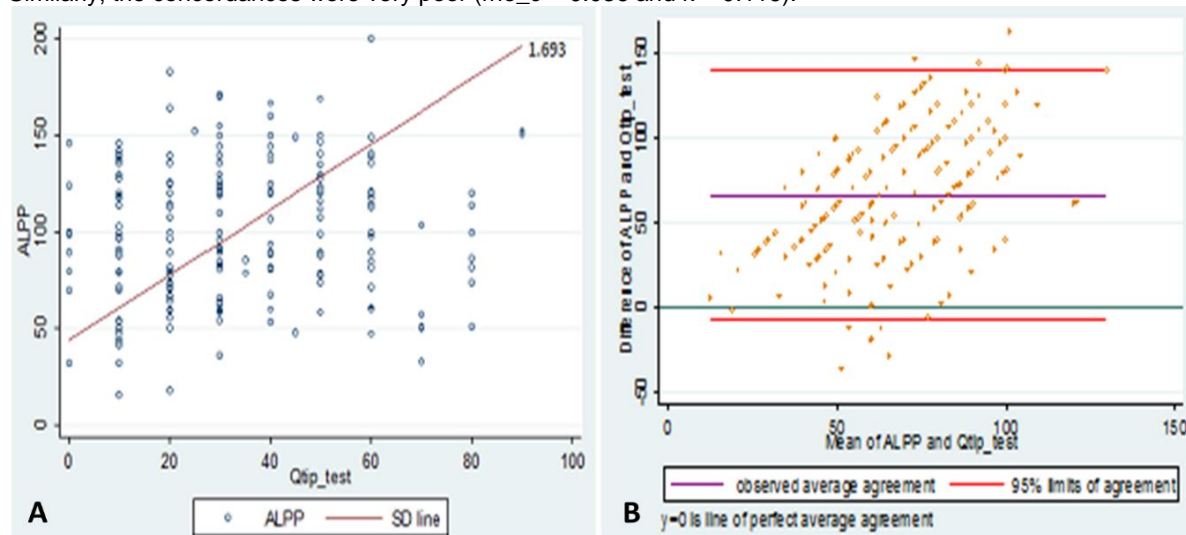


Figure 1. Reduced major axis regression (A) and Bland-Altman plots (B) of ALPP versus the Q-tip test. In A, a linear relationship wasn't found when a visual analysis of the two tests was performed. Solid lines in B indicate mean difference, whereas dashed lines show limits of agreement. Mean (limits of agreement) was 66.6 (-6.9-140.1).

Interpretation of results

In this study, neither the degree of urethral mobility using the Q-tip test nor the composite variable correlate or agree with the urethral function tests in UDS.

Concluding message

The results of our study suggest that the ALPP cannot be predicted using the degree of urethral mobility with the Q-tip test or by using the ICIQ-SF. Therefore, the ALPP cannot be replaced by any of the aforementioned tests for the classification of patients with SUI.

References

1. Christopher James Hillary, Nadir Osman CC. Considerations in the modern management of stress urinary incontinence resulting from intrinsic sphincter deficiency. *World J Urol.* 2015;33:1251-1256. doi:10.1007/s00345-015-1599-z.

Disclosures

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