

PREDICTIVE VALUE OF ICIQ OVERACTIVE BLADDER-SHORT FORM (ICIQ OAB SF) QUESTIONNAIRE IN DETRUSOR OVERACTIVITY IN WOMEN

Hypothesis / aims of study

Aim: To assess whether the ICIQ OAB-SF questionnaire can be used as a diagnostic tool to predict detrusor over activity (DO) in women.

Study design, materials and methods

Background: Detrusor overactivity (DO) is the occurrence of involuntary detrusor contractions during filling phase of cystometry. The symptom of incontinence can cause considerable impairment in quality of life. In 2001, ICIQ-OAB SF questionnaire was developed which combined symptoms of incontinence and QOL (Quality of Life) assessment (1). ICIQ OAB -SF has been found to have good reliability, validity and responsiveness. Urodynamics [UDS] has been considered the gold standard investigation but is invasive, embarrassing, and expensive and has a risk of urinary infection. There is a need for non-invasive, cheaper tests for irritative lower urinary tract symptoms to see whether we can reduce the need for UDS.

The BUS study was a multicentre study comprising of 22 units and recruited a total of 687 patients. The primary objective of the study was to estimate the accuracy of bladder ultrasound (index test) in the diagnosis of DO. For reference standard, UDS was performed on all patients for DO verification. In addition to the index test, we also collected data on demographics, clinical history and on quality of life using ICIQ-SF questionnaire. The scored items of the ICIQ-OAB SF are: "How often do you pass urine during the day?" "During the night, how many times do you have to get up to pass urine?" "How often do you have to rush to the toilet to urinate?" and "Do you leak urine before you get to the toilet?". ICIQ-OAB questionnaire is scored indicated by each response category. These scores can be added to achieve a total score whereby higher scores indicate increased severity of symptoms. There is a second part to each question which is a visual analogue scale ranging from 0 "Not at all" to 10 "A great deal". This measures the degree of "bother" of a particular symptom by a particular patient and is not used in the scoring but it can be helpful in determining the patient's priority for treatment, monitoring changes over time etc. The questionnaire was filled out by the patients and the results were compared with the clinical urodynamic findings. To assess the accuracy of the ICIQ OAB SF in predicting DO, we calculated the area under the curve from the receiver operator curve which plots the sensitivity against the specificity.

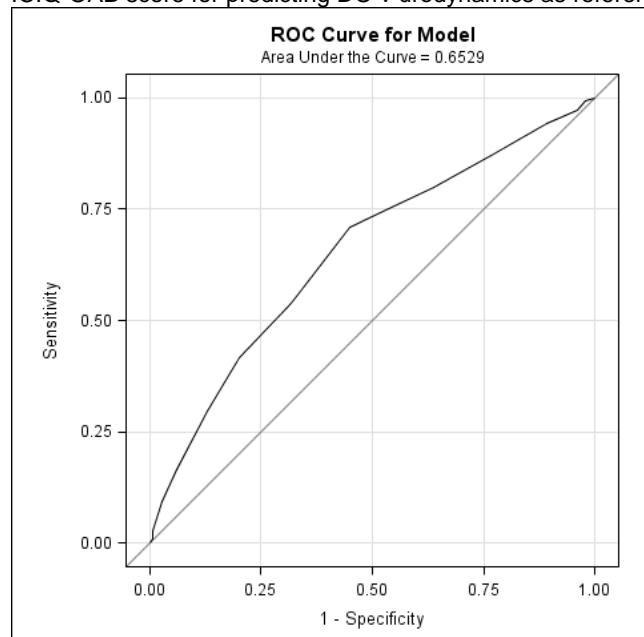
Results

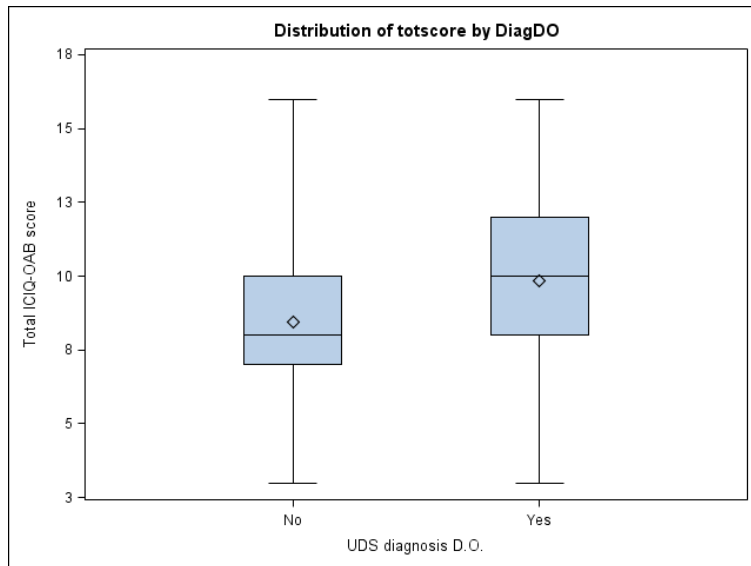
The total number of recruited patients to the study was 687 and UDS data was available for 666 women. The mean age was 52.7 years (SD 13.6) and mean BMI was 30.6 (SD 12.2). The population studied had varied incontinence type: 63% had urgency and stress incontinence, 34% had urgency alone. The area under the curve from the receiver operator curve was 0.65, 95%CI: 0.61, 0.70

Interpretation of results

For an ideal test, the AUC is 1; an excellent diagnostic test will have AUC 0.9-1, a good test 0.8-0.9, a fair test has AUC 0.7-0.8 and a poor test will have AUC 0.6-0.7. One cannot say that ICQ-OAB was good as a diagnostic tool for DO (AUC 0.65) but there is some relationship. For every point increase the odds of DO are increased by 22% (OR: 1.22, 95%CI: 1.15, 1.31).

ICIQ-OAB score for predicting DO v urodynamics as reference standard





Concluding message

The ICIQ questionnaire is a validated questionnaire to reflect patients' symptoms and its relation to quality of life. But the ICIQ-OAB is a poor test on its own in diagnosing DO. A combination of clinical history, bladder diary and ICIQ questionnaire may help in diagnosing patients with DO rather than using these tools independently. Validating the questionnaire for scores which would reflect the minimum important clinical differences is being explored.

References

1. Avery K, Donovan J, Peters TJ et al. ICIQ: a brief and robust measure for evaluating the symptoms and impact of urinary incontinence. *Neurourol Urodyn.* 2004;23(4):322-30.

Disclosures

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