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ARE OVERACTIVE BLADDER SYMPTOMS ALONE ACCURATE IN PREDICTING DETRUSOR OVERACTIVITY IN WOMEN AND CAN WE DO BETTER?

Hypothesis / aims of study

There has been relatively little testing of overactive bladder (OAB) symptoms alone for their accuracy in predicting the diagnosis of detrusor overactivity (DO) [1, 2]. This study aims to test the accuracy of the clinical diagnosis of DO using OAB symptoms alone and to determine whether the addition of any other significant clinical parameters might improve this accuracy.

Study design, materials and methods

The study involved 1140 women presenting for an initial urogynecological assessment for symptoms of pelvic floor dysfunction. Each woman underwent a comprehensive clinical and urodynamic assessment. Data were separated according to (i) no DO; (ii) DO. Clinical and urodynamic parameters possibly associated with DO were assessed using multiple logistic regression analysis with stepwise building of an optimal model for predicting DO. Receiver operator curves were used to compare the different models.

Results

The prevalence of DO was 23%. In multivariate analysis, the OAB symptoms of urge incontinence, urgency and nocturia (not frequency) were significantly associated with DO (all $p<0.001$). Prediction of DO was not of high accuracy (sensitivity 0.64; specificity 0.67). Other significant clinical parameters (multivariate analysis) were (i) the absence of the symptom of stress incontinence ($p=0.012$); (ii) women is of lower parity (0-1 vs 2 or more – $p=0.003$); (iii) no sign of any grade of any type of prolapse ($p<0.001$). Figure shows the receiver operator curves (ROC) for (a) OAB symptoms alone (Model 1); (b) OAB symptoms plus (i) and (ii) (Model 2); (c) OAB symptoms plus (i) to (iii) (Model 3).

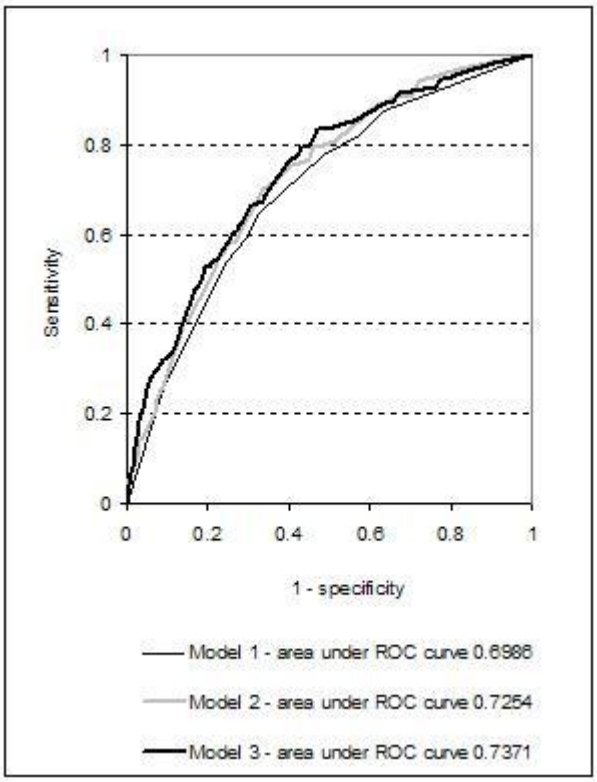

Figure 1: ROC Curves for the different multivariate logistic regression models.

When (i) to (iii) were added to the diagnostic model, there was a marginal improvement in accuracy (area under the ROC increased from 0.70 to 0.74) though this was not deemed to be clinically useful.

Interpretation of results

The OAB symptoms of urge incontinence, urgency and nocturia alone were not found to be particularly accurate in predicting DO. Frequency was not found to be predictive of DO in multivariate analysis. These findings agree with a previous study [1.] The addition of other significant clinical parameters to a multivariate logistic regression model using OAB symptoms alone, only resulted in a small statistical advantage which is not clinically useful.

Concluding message

An accurate clinical diagnosis of DO in women would appear to remain elusive. That the clinical prediction of DO is more difficult in women than in men [2] may be related to the greater range of possible diagnoses in women.

References

1: Neurourol Urodyn (2005) 24:100-105.

2: J Urol (2006) 175:191-195.

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
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Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**