

## WHAT'S 'NORMAL' PELVIC ORGAN DESCENT- AND WHAT'S 'PROLAPSE'?

### Hypothesis / aims of study

It has recently become clear that pelvic organ support in asymptomatic women varies markedly, with a significant minority of asymptomatic nulliparae showing 1<sup>st</sup> degree pelvic organ 'prolapse'. This has been shown on imaging[1] and on clinical assessment[2]. In parous women, symptoms of prolapse are common, but very variable for a given degree of pelvic organ descent[3]. Currently, no data exists that would help clinicians decide whether a certain degree of prolapse is relevant or not. This is an important issue given the fact that prolapse is generally considered a relative indication for surgical treatment. We performed a retrospective study in order to mathematically define appropriate cutoffs for significant pelvic organ descent on the basis of the likelihood of symptoms.

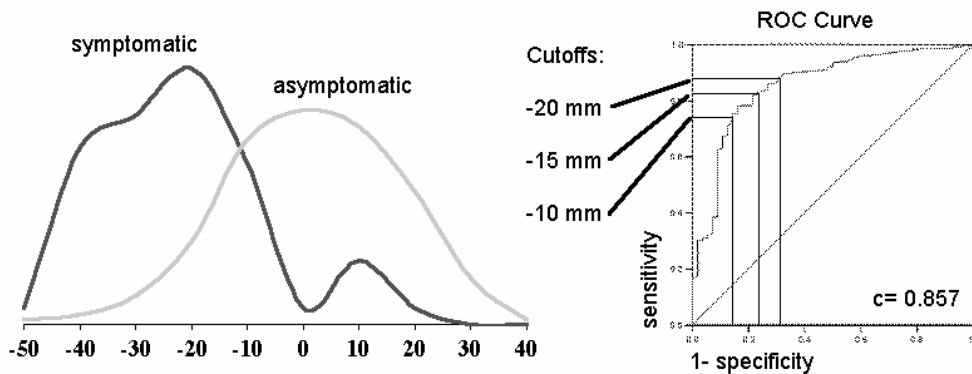
### Study design, materials and methods

In a retrospective study we reviewed the case notes of 735 women who had been seen for symptoms of lower urinary tract dysfunction and prolapse at a tertiary urogynaecological centre. The assessment included an interview, clinical examination, multichannel urodynamics and imaging. 2D and 3D/ 4D capable ultrasound systems (Philips ATL HDI 1000 and Medison SA 8000) were used to determine pelvic organ descent on maximal Valsalva (best of at least three attempts). In all cases, translabial ultrasound was carried out either by the first author, or by personnel trained by him for at least 50 consecutive examinations, with the patient supine and after voiding.

In order to identify the association between a given degree of descent and symptoms of prolapse (feeling of a vaginal lump or bulge, or a dragging sensation), we excluded all those women in whom there was prolapse of several compartments, without one compartment being clearly dominant over the others in terms of descent (>10 mm difference between measurements of descent).

### Results

The mean age of 735 women included in this study was 55.1 (range 17.9- 90.9), mean parity was 2.8 (0-12). They suffered from stress incontinence (78.9%), urge incontinence (74.1%), frequency (38.1%), nocturia (49.1%) and symptoms of voiding dysfunction (29.8%). Information on prolapse symptoms was missing in 6; 188 reported such symptoms (25.8%). Seventy-four women showed a symptomatic multi-compartment prolapse and were excluded from the analysis.



**Figure 1:** Histograms for bladder descent in mm (left) in asymptomatic (grey) and symptomatic women (black) and receiver operator curve for bladder descent as a test for symptomatic prolapse (right). Lines define proposed cutoffs.

