Conclusions

It is concluded that pressure generated by stepwise inflation of a penile pressure cuff is a valid and reliable method of controlling intraurethral pressure at mid-cuff level. Of the cuff widths investigated, the wider cuffs (5.4, 4.6 cm) allow greater accuracy whilst the narrowest of the cuffs investigated (3.7 cm) underestimates urethral pressure by approximately 20% in the range of interest. These data encourage the use of incremental penile cuff inflation as a non-invasive method of measuring isovolumetric bladder pressure during voiding.

References

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7

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AMBULATORY URODYNAMICS: DO WE NEED IT?

INTRODUCTION

Ambulatory urodynamics is not widely used in clinical practice as many authors reported a high prevalence of abnormal detrusor contractions in asymptomatic subjects[1]. Additionally many clinicians have no access to this diagnostic tool which requires specialised expertise, is expensive and time-consuming. Therefore when conventional urodynamic investigation results are inconclusive women with urinary symptoms are often treated symptomatically, on the basis of the frequency/volume chart or using specific laboratory urodynamic parameters,.

The aim of this study was to evaluate whether ambulatory urodynamics alters the management of women with urinary symptoms but non-diagnostic laboratory urodynamics.

METHODS

The clinical records of women with urinary symptoms but non-diagnostic laboratory urodynamics were analysed. They all underwent ambulatory urodynamics. Four different assessers examined the medical history, gynaecological examination findings, urinary symptoms questionnaire, frequency/volume chart and laboratory urodynamic reports but were blinded to the ambulatory urodynamic result and their subsequent management. The assessors decided a plan of treatment for each woman, specifying which amongst the medical history, gynaecological examination findings, urinary symptoms questionnaire, frequency/volume chart and urodynamic parameters which were most important in deciding the management of the woman.

The data were entered into a dedicated database and used to compare the proposed treatment with the actual management, decided upon after ambulatory urodynamics.

RESULTS

In this study one hundred women were investigated (mean age of 47.9 years, range 18-83 years). After ambulatory urodynamics 44 had a final diagnosis of abnormal detrusor contractions whereas 56 had a stable bladder. In 60% of the women management was different after ambulatory urodynamic. Table 1 shows the actual treatment received after ambulatory urodynamics and the one proposed in this study.

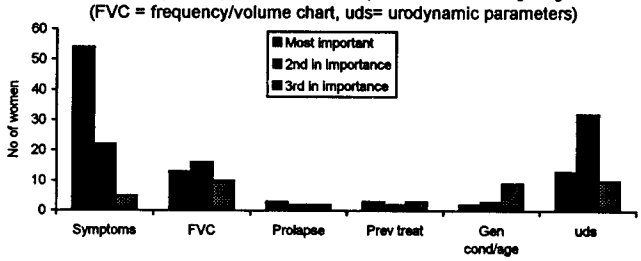
Actual treatment	33	3	21	37
Proposed treatment	36	31	17	16

Table 2 shows the treatment proposed after AU and after reviewing the same cases without considering AU. The patients were grouped according to the final AU result of stable (no DI) or unstable bladder (DI).

		Antichol.	Antichol. ± Physio	Physio	Other
Standard management	DI/no AU	22	13	5	4
	DI after AU	31	8	3	2
Management after ambulatory uds	No DI/No AU -	14	18	12	12
	No DI after AU	2	1	18	35

When deciding on management without the benefit of ambulatory urodynamics the following parameters were felt to be important (figure 1)

Figure 1 Diagnostic parameters and importance in reaching diagnosis
(FVC = frequency/volume chart, uds= urodynamic parameters)



Some videourodynamic parameters were considered discriminant, despite the final overall inconclusive results. These were: detrusor pressure rise on filling and maximum bladder capacity (14); pressure/ flow study (9); first sensation to void, detrusor pressure at the stop test and trabeculation (5).
We also compared the women with stable and unstable bladders on ambulatory urodynamics. They significantly differed only for urge incontinence (p=0.04), being more prevalent in the unstable women, and the voided volume before their laboratory urodynamic test (p 0.01) being 393.3mls (SD 121.8) in the women with unstable bladder and 491.3 (SD 188.9) in case of stable bladder.
CONCLUSION
This study clearly shows that ambulatory urodynamics alters the management of women with urinary symptoms who have no laboratory urodynamic diagnosis. Up to 60% of women would have different and often inappropriate treatment if ambulatory urodynamics were not available. This is not surprising as there is a poor correlation between urinary symptoms and urodynamic diagnosis. In this study urinary symptoms were the most important factor in deciding treatment in the absence of ambulatory urodynamics. Change of management may not alter outcome. A prospective randomised trial is needed to confirm whether ambulatory urodynamics does alter outcome in symptomatic women who do not have a laboratory urodynamics diagnosis.
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8

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A MULTI-DISCIPLINARY THERAPEUTICAL APPROACH IN A "VOIDING SCHOOL". FOR THERAPY-RESISTANT DYSFUNCTIONAL VOIDING.

Because dysfunctional voiding is often therapy-resistant to traditional ambulatory treatment: (up to 30 % after > 1 y therapy), alternatives had to be found : J. Van Gool and al started in Utrecht with a "voiding" school: an intensive training by a "trainster" during a hospitalisation-period. We modified their therapy design to a real multi-disciplinary approach with combination of medical, psychological, physiotherapeutical (urogym of pelvicfloor) therapeutical tools, coördinated by a specialised nurse-departement.
Aim of the study : 1)To demonstrate the effectiveness of a multi-disciplinary therapeutical approach and an intensive training program during a hospitalisation of 2 weeks. 2) To analyse factors that play a role in succes-rate of this therapy.
Study-group: Included : university hospital admitted children >7y, > 4/7 d wet, with proven dysfunctional voiding on cystomanometry and therapy-resistant to > 1y ambu-latory therapy. Excluded: mental retardation, psychiatric or neurological disorders.
Methods: All patiënts received a initially a standardised screening (anamnesis (micturation and psychological), clinical investigation, calendar, bladdervolume for age, uroflow, residu) that was suggesting a bladderdysfunction, that was subsequently proven on radio-cystomanometry, Ambulatory treatment was tailored on the outdoorclinic, based on these findings: physiotherapy of the pelvic floor, training, drugs, alarm and/or psychology. In therapy-resistant patients, this was followed by an intensive training program in the "voiding school", during a hospitalisation period of 2 weeks (weekends not included), by a multidisciplinary team : paediatric nephrology, urology, psychology, physiotherapy and specialised nurses. These nurses did the coördination, follow up.The daily program consisted of daily monitoring- and motivation-sessions by the nurse, a voiding- and micturation-calendar during high fluid intake, 1 session of psychology, 2 sessions of pelvic floor-exercise (physiotherapy), biofeedback by uroflow and residu after miction by ultrasonography. Drugs were used only when indicated on cystomanometry. Alarmsystems were introduced, when appropriate both for daytime and night-time indications.The patients were always hospitalised together with 1 or 2 other children of the same sex, age, and voiding disorder. No invasive techniques were allowed during the training period. The hospitalisation was followed by ambulatory treatment and follow up by multidisciplinary