L’urodynamique est-elle rentable pour la santé publique ?

G. Amarenco (Paris)

Vendredi 18 Septembre, SIFUD 2015, La Baule

Conflits d'Interêts

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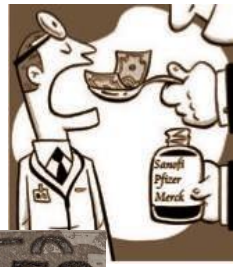
Chef de Service. Hôpital Tenon, APHP, GHU Est
Directeur GRC01 UPMC Green Groupe de Recherche en Neuro-Urologie
Secrétaire Général adjoint de la SIFUD-PP
Membre du CA de la SOFMER



A titre personnel, consultant et speaker :

Allergan
Pfizer
Rottapharm
Astellas
Ipsen
Merck
Laborie
Wellspect
Coloplast
Medtronic

(les absents intéressés peuvent prendre rendez-vous par mail à : gerard.amarenco@tnn.aphp.fr)

A titre institutionnel :

Assistance Publique Hôpitaux de Paris
Université Pierre et Marie Curie
Service de Neuro-Urologie, Hôpital Tenon
Green, GRC01, UPMC
SIFUD-PP
Acti-PP
SBM, QUID
SOFMER
GENULF
ICS

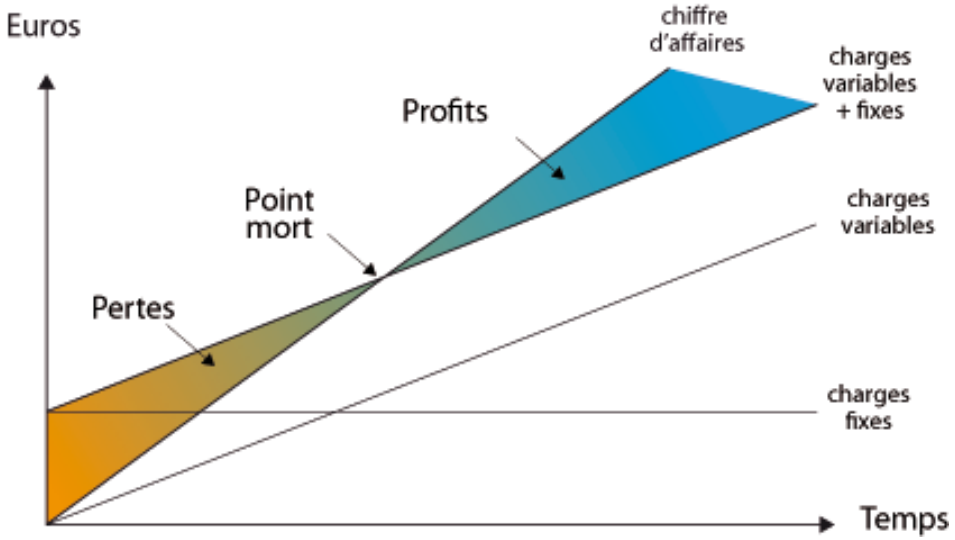
(tous ces groupes ou institutions me font vivre, ou contribuent à mon confort moral intellectuel ou financier, et je ne saurai jamais assez les remercier.
D'ou mes conflits.)

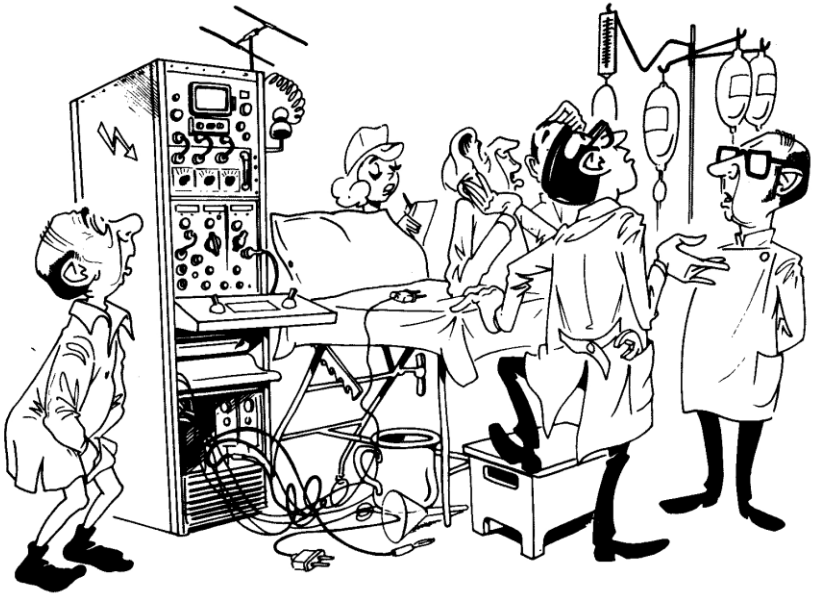
Au titre de ces groupes ou institutions :

Allergan, Shire, Scwha medico, FSK, Diadom
Pfizer, GHW, Hollister, Braun, C-Medic,
Rottapharm, Teleflex, Edimex, Toshiba,
Astellas, Apple, Microsoft, Dantec, Alpine Natus
Ipsen, Gynecare, Bohringer, Lilly, Sanofi, Glaxo
Merck, Novartis, Astra Zeneca, Takeda, Roche
Laborie, MMS, Geyre, Johnson & Johnson, Bristol
Wellspect, Mylan, Pierre Fabre, Mylan, Boiron
Coloplast, Fournier, Biogaran,Leo, Servier,
Medtronic, Bouchara, Genzyme [*liste partielle*]

(Merci publiquement à tous ces industriels qui pallient à l'absence de fonds spécifiques : pour exercer notre métier, pour organiser des enseignements, pour effectuer des recherches)

Présentation graphique du seuil de rentabilité





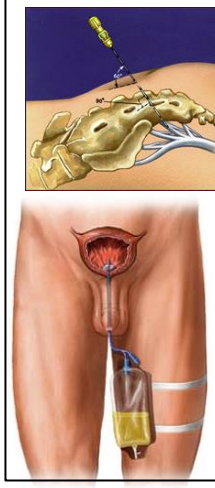
… car elle pourrait faire éviter d'autres explorations (couteuses) …

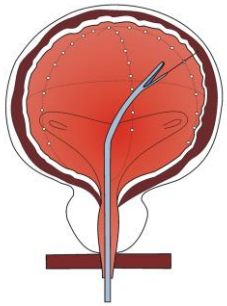
… car elle pourrait faire éviter des traitements couteux ou des errements thérapeutiques…

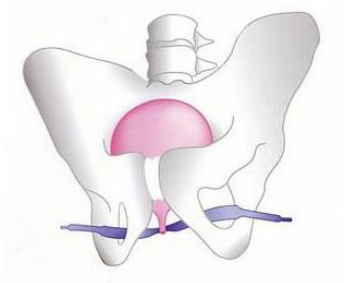
… car elle pourrait permettre de mettre en route des actions de prévention …

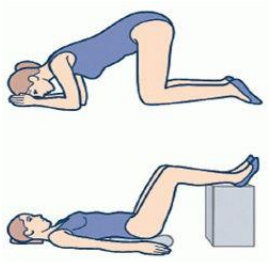
… car elle pourrait permettre d'éviter des hospitalisations (diagnostiques ou thérapeutiques) couteuses …

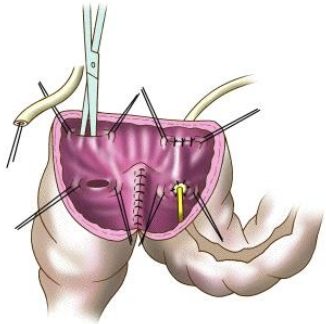
… car elle pourrait permettre d'éviter des institutionalisations

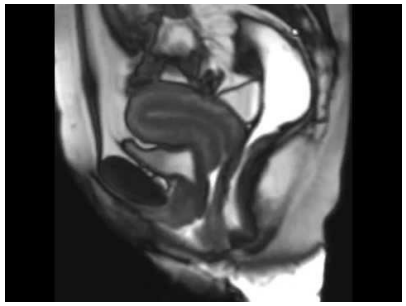


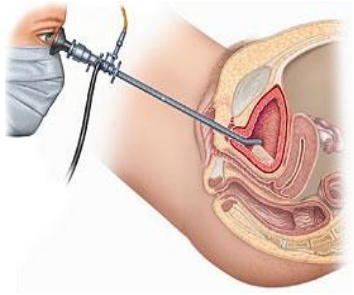


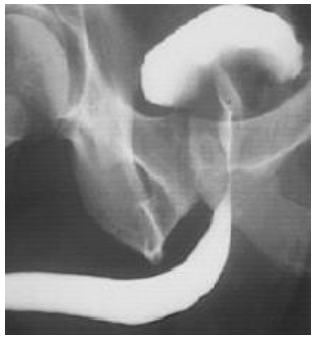


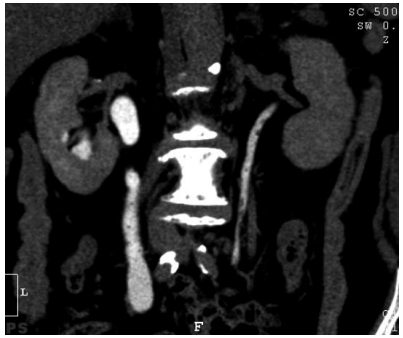












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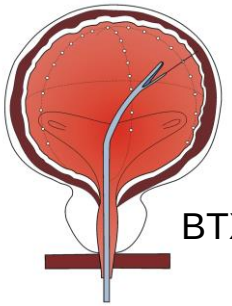
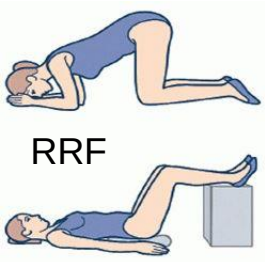
Notre choix :

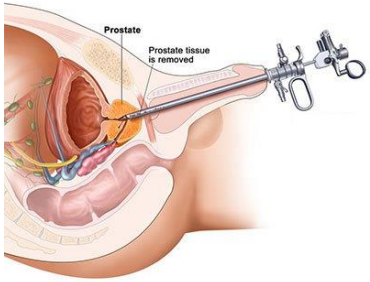
Stim S3



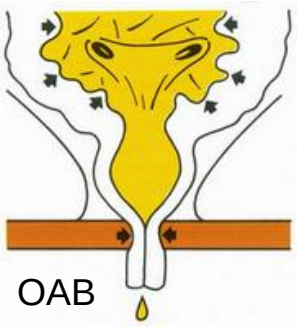
BTX



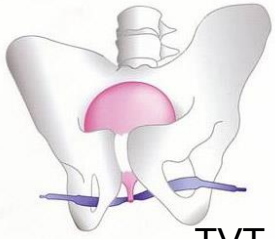
RRF



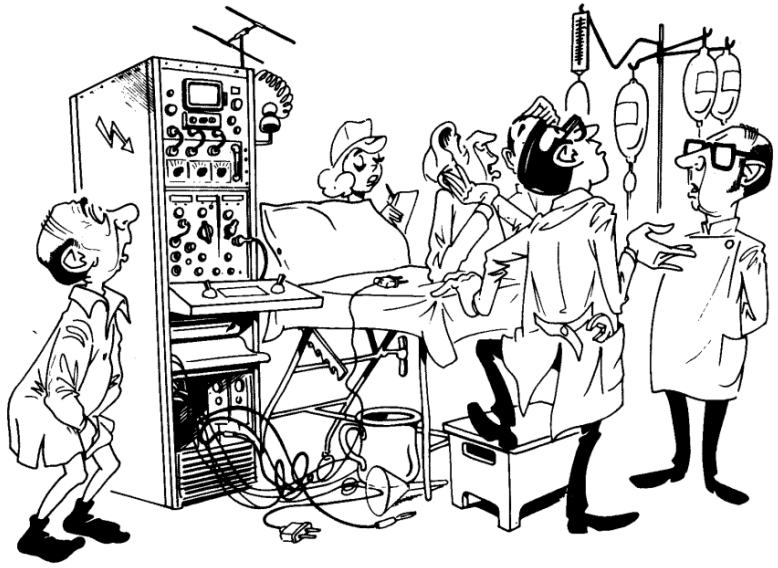
HBP



OAB



TVT



L'exploration urodynamique est elle prédictive du succès de la rééducation périnéale ?

Neurourol Urodyn. 2013 Jun;32(5):408-15. doi: 10.1002/nau.22347. Epub 2012 Nov 20.

What predicts and what mediates the response of urge urinary incontinence to biofeedback?

Resnick NM[1], Perera S, Tadic S, Organist L, Riley MA, Schaefer W, Griffiths D.

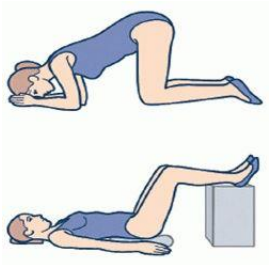
Conclusion : Severe DO predicts poor response to BFB. Good response is mediated by reduction in DO elicitability. Other than baseline UUI frequency, there are no other clinically or urodynamically important predictors or mediators of BFB response in this population.

International Urogynecology Journal
September 1995, Volume 6, Issue 5, pp 277-281

A randomized controlled trial of urodynamic investigations prior to conservative treatment of urinary incontinence in the female

I. N. Ramsay, H. M. Ali, M. Hunter, D. Stark, K. Donaldson

We conclude that patients attending for the first time with an uncomplicated story of urinary incontinence can be effectively treated conservatively without prior urodynamics.



L'exploration urodynamique est elle prédictive du succès des anticholinergiques dans l'OAB ?

BJUI

Does urodynamic verification of overactive bladder determine treatment success? Results from a randomized placebo-controlled study

James G. Malone-Lee and Salah Al-Buheissi*
*Department of Medicine, University College London Medical School, Whittington Campus, and *Department of Urology, Whittington Hospital, London, UK*

2009 BJU INTERNATIONAL | 103, 931-937 |

CONCLUSIONS

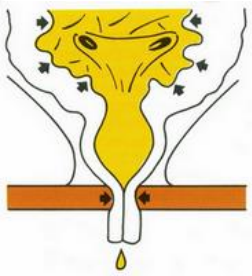
Urodynamics status could not predict treatment outcomes between patients treated with tolterodine-ER or placebo. The results add support to evidence suggesting that urodynamic assessment is not a prerequisite for the treatment of overactive bladder (OAB). Therefore, we recommend that anticholinergic treatment may be initiated to patients with OAB symptoms without the need for urodynamics studies.

BJU Int. 2010 May;105(9):1268-75. doi: 10.1111/j.1464-410X.2009.09037.x. Epub 2009 Nov 4.

Response to fesoterodine in patients with an overactive bladder and urgency urinary incontinence is independent of the urodynamic finding of detrusor overactivity.

Nitti VW[1], Rovner ES, Bavendam T.

Conclusion : Regardless of the presence of DO, the response to fesoterodine treatment was dose-proportional and associated with significant improvements in OAB symptoms, indicating that the response to OAB pharmacotherapy in patients with UUI was independent of the urodynamic diagnosis of DO.



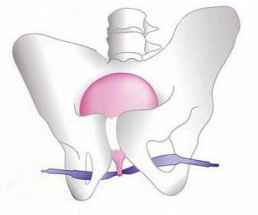
L'exploration urodynamique est elle prédictive du succès de la chirurgie de l'IUE ?

Neurourol Urodyn. 2014 March ; 33(3): 302–306. doi:10.1002/nau.22398.

Preoperative Urodynamics in Women with Stress Urinary Incontinence Increases Physician Confidence, but Does Not Improve Outcomes

Philippe Zimmern, **Heather Litman**, **Charles Nager**, **Larry Sirls**, **Steve Krauss**, **Kimberly Kenton**, **Tracey Wilson**, **Gary Sutkin**, **Nazema Siddiqui**, **Sandip Vasavada**, and **Peggy Norton**

Conclusions—In women undergoing UDS for predominant SUI, UDS increased physicians' confidence in their clinical diagnoses; however, this did not correlate with treatment success.



Predictors of Success With Postoperative Voiding Trials After a Mid Urethral Sling Procedure

Thomas L. Wheeler, II,*,† Holly E. Richter,‡ W. Jerod Greer,§ C. Bryce Bowling,§ David T. Redden§ and R. Edward Varner§

0022-5347/08/1792-0600/0
THE JOURNAL OF UROLOGY®

Vol. 179, 600-604, February 2008
Printed in U.S.A.
DOI:10.1016/j.juro.2007.09.080

CONCLUSIONS

Maximum flow rates were the best predictor of passing an initial voiding trial after a mid urethral sling for incontinence surgery. However, the ability to maintain performance on a second voiding trial, even only 3 hours after passing an initial trial, is not assured.

L'exploration urodynamique est elle prédictive du succès de la chirurgie de l'IUE ?

Int Urogynecol J. 2011 Mar;22(3):321-5. doi: 10.1007/s00192-010-1261-7. Epub 2010 Sep 15.

Mixed incontinence and cystocele: postoperative urge symptoms are not predicted by preoperative urodynamics.

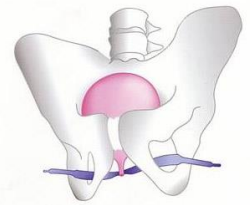
Wolter CE[1], Kaufman MR, Duffy JW, Scarpero HM, Dmochowski RR.

Conclusion : Detrusor overactivity (DO) was seen in 22 MUI patients, but was not predictive of post-op urgency (p = 0.91).

J Reprod Med. 2010 Mar-Apr;55(3-4):103-7.

Can urethral retroresistance pressures predict midurethral sling outcomes?

Culligan PJ[1], Lewis-Priestley J, Blackwell L, Tate SB.



Conclusion : Preoperative urethral retroresistance pressure measurements did not reliably predict surgical success or failure; therefore, this urodynamic test is of little value to the clinician.

Int Urogynecol J Pelvic Floor Dysfunct. 2008 Jan;19(1):97-102. Epub 2007 Jun 5.

Transobturator slings for stress incontinence: using urodynamic parameters to predict outcomes.

Guerette NL[1], Bena JF, Davila GW.

Conclusion : Using a combined model, the cutoff values of VLPPcap > 60 cmH2O and MUCP > 40 cmH2O were the most predictive of surgical success, revealing a sensitivity of 83% (0.55, 0.95) and specificity of 79% (0.67, 0.88).

L'exploration urodynamique est elle prédictive du succès de la chirurgie de l'IUE ?

Am J Obstet Gynecol. 2009 Jun;200(6):649.e1-12. doi: 10.1016/j.ajog.2008.12.039. Epub 2009 Apr 3.

Predictive value of urodynamics on outcome after midurethral sling surgery for female stress urinary incontinence.

Houwert RM[1], Venema PL, Aquarius AE, Bruinse HW, Kil PJ, Vervest HA.

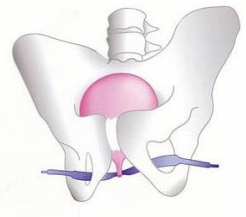
After multivariate analysis, mixed urinary incontinence (P = .04), previous incontinence surgery (P = .022), and detrusor overactivity (P = .02) were significantly related to failure of midurethral sling procedures. There were no predictive urodynamic parameters for failure in patients with mixed urinary incontinence or previous incontinence surgery.

J Urol. 2008 Apr;179(4):1470-4. doi: 10.1016/j.juro.2007.11.077. Epub 2008 Mar 4.

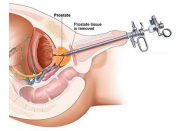
Urodynamic measures do not predict stress continence outcomes after surgery for stress urinary incontinence in selected women.

Nager CW[1], FitzGerald M, Kraus SR, Chai TC, Zyczynski H, Sirls L, Lemack GE, Lloyd LK, Litman HJ, Stoddard AM, Baker J, Steers W; Urinary Incontinence Treatment Network.

Conclusion : The level of Valsalva leak point pressure and the presence of detrusor overactivity do not predict the success outcomes after the Burch or autologous fascia sling procedures in women with pure or predominant stress urinary incontinence.



L'exploration urodynamique est elle prédictive du succès de la chirurgie de l'HBP ?



J Urol. 2002 Aug;168(2):605-9.

Correlations of urodynamic changes with changes in symptoms and well-being after transurethral resection of the prostate.

Van Venrooij GE[1], Van Melick HH, Eckhardt MD, Boon TA.

Conclusion : Performing urodynamics preoperatively helps to predict the degree of symptom relief, decreased bother and increased well-being after transurethral prostate resection.

J Urol. 2001 Feb;165(2):499-502.

Urodynamic pressure flow studies can predict the clinical outcome after transurethral prostatic resection.

Rodrigues P[1], Lucon AM, Freire GC, Arap S.

Conclusion : Urodynamic studies provide great predictive value of clinical improvement after prostatic relief but they also properly predict the poor clinical results in nonobstructed patients.

J Urol. 1997 Nov;158(5):1829-33.

Urodynamic assessment of patients with acute urinary retention: is treatment failure after prostatectomy predictable?

Djavan B[1], Madersbacher S, Klingler C, Marberger M.

Conclusion : Patients with acute urinary retention, age 80 years or older, with retention volume greater than 1,500 ml., no evidence of instability and maximal detrusor pressure less than 28 cm. water are at high risk of treatment failure.

Neurourol Urodyn. 2002;21(5):444-9.

Detrusor instability with equivocal obstruction: A predictor of unfavorable symptomatic outcomes after transurethral prostatectomy.

Machino R[1], Kakizaki H, Ameda K, Shibata T, Tanaka H, Matsuura S, Koyanagi T.

Conclusion : Preoperative evaluation of DI is of benefit because it enhances predictive value of the PFS.

L'exploration urodynamique est elle prédictive du succès d'une neuromodulation sacrée ?

World J Urol. 2015 Feb 14. [Epub ahead of print]

The value of urodynamic tools to guide patient selection in sacral neuromodulation.

Drossaerts J[1], Rademakers K, van Koeveringe G, Van Kerrebroeck P.

Conclusion : Patients with reduced contractility on ambulatory-UDS have a lower chance of SNM success. Hence, ambulatory-UDS allows us to select patients with a real acontractile bladder and predict SNM failure. In patients with storage dysfunction, additional ambulatory-UDS does not seem to contribute in predicting SNM outcome.

BJU Int. 2008 Feb;101(3):325-9. Epub 2007 Dec 5.

Urodynamic evaluation of sacral neuromodulation for urge urinary incontinence.

Groenendijk PM[1], Lycklama à Nyeholt AA, Heesakkers JP, van Kerrebroeck PE, Hassouna MM, Gajewski JB, Cappellano F, Siegel SW, Fall M, Dijkema HE, Jonas U, van den Hombergh U; Sacral Nerve Stimulation Study Group.

Conclusion : These urodynamic results show a statistically significant improvement in FSF and MFV in patients with UI with or with no DO after SNM. Although there was a urodynamic and clinical improvement in both groups, patients with UI but no DO are at least as successful as patients with UI and DO. Therefore in patients with UI, DO should not be a prerequisite selection criterion for using SNM.

L'exploration urodynamique est elle prédictive du succès des injections de BTX ?

Urology. 2014 Dec;84(6):1480-4. doi: 10.1016/j.urology.2014.09.001.

Preoperative urodynamic factors predicting outcome of botulinum toxin-A intradetrusor injection in children with neurogenic detrusor overactivity.

Kim SW[1], Choi JH[1], Lee YS[1], Han SW[1], Im YJ[2].

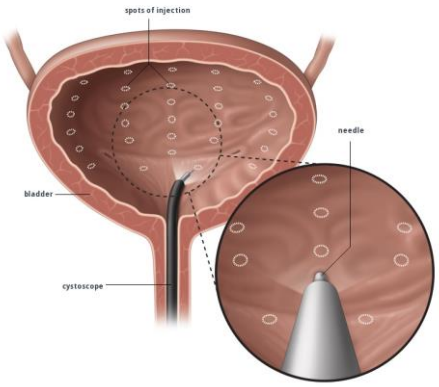
Conclusion : Preoperative bladder compliance and OBN were important predictors of outcome after BTX-A intradetrusor injection. Thus, intradetrusor BTX-A injection should be considered in select patients to achieve optimal outcome.

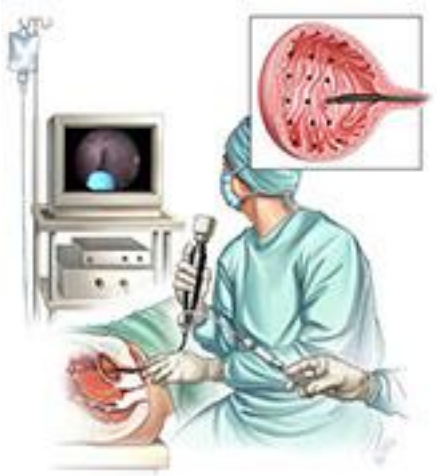
Urology. 2008 Mar;71(3):455-9. doi: 10.1016/j.urology.2007.11.039.

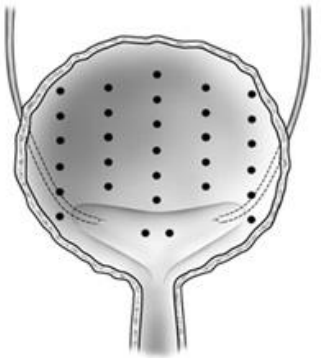
Urodynamic assessment of poor responders after botulinum toxin-A treatment for overactive bladder.

Sahai A[1], Khan MS, Le Gall N, Dasgupta P; GKT Botulinum Study Group.

Conclusion : Very high MDP greater than 110 may predict a poor response to treatment with 200 U of BTX-A. Higher doses may be necessary in these patients.







L'exploration urodynamique est elle prédictive :

- du succès de la chirurgie de l'IUE ? → Non pour le risque de dysurie
  Non pour chance succès chirurgie
  (bien que top si VLPP > 60 & PU > 40)
- du succès de la chirurgie prostatique (HBP) ? → Oui
- du succès du traitement anticholinergique de l'OAB ? → Non
- du succès de la rééducation périnéale ? → Oui pour RRF OAB (mauvais si cnid)
  Non pour RRF IUE
- du succès des injections de BTX ? → Oui (mauvais si tr compliance ou PM élévée)
- du succès de la neuromodulation sacrée ? → Oui pour rétention (mauvais si acontractilité)
  Non pour OAB