381

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PARAMETERS PREDICTING THE RESPONSE TO INTRADETRUSOR BOTULINUM A TOXIN INJECTIONS IN PATIENTS WITH IDIOPATHIC DETRUSOR OVERACTIVITY.

Hypothesis / aims of study

Botulinum Toxin A is effective in the management of refractory OAB. Our aim was to determine which pre-injection urodynamic, demographic and clinical parameters might predict the response to intradetrusor Botulinum A injections using DYSPORT® (500iu)

Study design, materials and methods

33 patients underwent injection and were assessed objectively and subjectively pre-treatment, at 6 weeks, 3, 6 and 9 months. Patients who responded to treatment, defined as no urge incontinence, were compared with those who did not. We also attempted to define, on uroflow data, risk factors for post-operative voiding dysfunction.

Ethical approval was obtained for this study and all patients gave informed consent.

Results

Table 1 compares mean pre-treatment urodynamic values for wet and dry subjects at follow-up. Table 2 compares pre-treatment uroflow data for patients that developed post-operative voiding dysfunction with those who did not. Neither age, or severity of the incontinence as measured pre-treatment by the visual analogue score (0-10), the Kings Health Questionnaire, and Bladder diary influenced the continence outcome.

Table 1 - Urodynamic variables before and after treatment

	6 weeks		3 months		6 months		9 months	
PRE-TREATMENT PARAMETER	Dry	Wet	Dry	Wet	Dry	Wet	Dry	Wet
First Desire (FD) (ml)	194	177	215	174	268*	154*	245	167
Maximum cystometric capacity (MCC) (ml)	304	282	386	284	405*	258*	331	253
Volume at 1st Detrusor Contraction cmH20	233	170	292*	144*	246	164	303	126

Table 2 - Uroflow date for those with and without postoperative voiding dysfunction

	6 weeks		3 months		6 months		9 months	
Requires CISC or Self-catherisation	No	Yes	No	Yes	No	Yes	No	Yes
Pre-op post –void residual (ml)	17	171	19	147	14	224	19	239
Pre-op maximum flow rate (ml/s)	10	18	18	11	19	9	18	9

*P<0.05

Interpretation of results

Patients with refractory idiopathic OAB who have higher values for FD, MCC and volume at first detrusor contraction are more likely to be continent following intradetrusor Botulinum Toxin A (Dysport) injection. Pre-treatment uroflow data did not influence the risk of post-operative voiding dysfunction.

Concluding message

Botulinum Toxin A is an innovative and effective treatment for refractory detrusor overactivity. Pre-treatment urodynamics may predict the risk of postoperative voiding dysfunction.

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References

1. J Urol (2005)174; 984-989.
2. Am J Obstet Gynecol (2005)192(5);1735-4

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CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.
HUMAN SUBJECTS: This study was approved by the Surrey and London Borders and followed the Declaration of Helsinki Informed consent was obtained from the patients.