

INTRADETRUSOR INJECTION OF BOTULINUM NEUROTOXIN TYPE A IN PATIENTS WITH IDIOPATHIC DETRUSOR OVERACTIVITY UNDERGOING RADICAL RETROPUBIC PROSTATECTOMY.

Hypothesis / aims of study

To determine the clinical relevance of intradetrusor injection of botulinum neurotoxin type A (BoNTA) in patients with idiopathic detrusor overactivity (IDO) and prostate cancer (PCa) undergoing radical retropubic prostatectomy (RP)

Study design, materials and methods

From April 2004 to January 2011, N=18 patients with a histological conformation of PCa, an urodynamic diagnosis of IDO with or without incontinence, absence of an obstruction and of any associated or contributing neurological, hormonal, and infective pathology underwent RP. All patients were urodynamic assessed with cystometry using a filling rate of 20 ml/min. During RP and before the vesicourethral anastomosis took place, all patients were injected 100 units of BoNTA (BOTOX[®]) with 10 ml of normal saline, intradetrusally at the rate of 0,5 ml at each site for 20 sites of the posterior wall, lateral wall and the dome of the bladder sparing the trigone and ureteric orifices. After discharge, all patients underwent rehabilitation for 3 weeks and at the end of their rehabilitation were evaluated in terms of urgency, frequency, nocturia and incontinence with the 1-hour pad test. The functional bladder capacity (FBC) was evaluated preoperative and at the end of their rehabilitation.

Results

The median age of the patients was 61,1 years (54-72). N=9 patients (50%), of which N=6 had preoperative an IDO with incontinence, exhibited exceptional improvements in frequency, urgency and nocturia. Furthermore, they demonstrated an absence of urge incontinence and a 45% median increase of their FBC (median 241ml to median 350 ml). Their 1-hour pad test was < 1gr (median 0,8gr.). N=6 patients (33,3%), of which N=3 had preoperative an IDO with incontinence, although exhibiting a 14% median increase of their FBC (median 278ml to median 318 ml), did not exhibit improvements of their preoperative clinical symptoms. Their 1-hour pad test was 10-50 gr. (median 23,3gr.). N=3 patients (16,6%) demonstrated a 35% median decrease of the FBC (median 251ml to median 163 ml) as well as a worsening of their urge incontinence and clinical symptoms. They demonstrated a 1-hour pad test of > 50gr. (median 66gr).

Interpretation of results

The results of this study indicate that the simultaneous use of BoNTA in such patients could normalise micturition frequency, diminish urge incontinence and increase the functional capacity of the bladder in up to 50% of cases.

Concluding message

There is a clinical relevance of intradetrusor injection BoNTA in patients with idiopathic IDO and PCa undergoing RP. However, due to the small amount of patients involved in this study a prospective trial with more patients is warranted to assess the impact of these results on clinical practice.

Specify source of funding or grant	None
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	Both radical prostatectomy for prostate cancer and intradetrusor injection of botulinum neurotoxin type A in patients with idiopathic detrusor overactivity are known therapeutic modalities
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes