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NECESSITY OF SELF-CATHETERISATION AFTER INTRAVESICAL BOTULINUM TOXIN-A INJECTIONS.

Hypothesis / aims of study
Injection in the bladderwall with botulinum toxin-A (BTX-A) is an effective treatment for patients with therapy-resistant detrusor overactivity (DO). After every injection with BTX-A there is a risk of developing residual volume and therefore the indication to clean intermittent self-catheterisation (CISC)

Study design, materials and methods
Between 2004 and 2009, 104 patients with DO have been treated with BTX-A (Botox® 200IU). A retrospective research has been done at 64 female patient with idiopathic detrusor overactivity (IDO) (mean age 63.5 years). In every status it was checked whether CISC was needed, and if CISC was needed, if it was temporarily or permanently. All patients who have been treated and were previously not catheterizing were included.

Results
Of the 104 patients who were treated, 64 were eligible to be included in this study. Thirty-four patients got only 1 injection, sixteen got 2 injections, nine got 3 injections and five patients got four injections. After the first injection the necessity of self-catheterisation was 28%, after the second injection 20%, after the third injection 21% and after the fourth injection 21%. This means an overall chance of self-catheterisation after any injection of 22%. Of all patients who use CISC, 32% will be temporarily dependent of CISC, the remainder will be permanently dependent (table 1).

Interpretation of results
One in four patients to one in five patients who are treated with BTX-A will sooner or later develop residual volume. The chance of self-catheterisation does not change if more injections are given. Of all patients who are using CISC, 2 out of 3 patients will be permanently dependent of CISC.

Concluding message
Complications due to BTX-A injections should not be underestimated. Giving high doses of BTX-A should be reconsidered. From recent studies, it seems that lowering the dose of BTX-A, the chance to develop residual urine can be diminished[1,2,3].

Table 1: Catheterizing per injection

	Total patients using CISC (%)	New CISC (%)	Already using CISC (%)	Temporary CISC (%)
After injection 1	18/64 (28%)	18/64 (28%)	-	8/18 (44%)
After injection 2	14/30 (47%)	6/30 (20%)	8/14 (57%)	4/14 (29%)
After injection 3	10/14 (71%)	3/14 (21%)	7/10 (70%)	3/10 (30%)
After injection 4	3/5 (60%)	1/5 (20%)	2/3 (66%)	1/4 (25%)

References
1. Kuo HC: Will suburothelial injection of small dose of botulinum A toxin have similar therapeutic effects and less adverse events for refractory detrusor overactivity? Urol. 2006; 68:993-997
2. Sahai A, Sangster P, Kalsi V, Khan MS, Fowler CJ, Dasgupta P. Assessment of urodynamic and detrusor contractility variables in patients with overactive bladder syndrome treated with botulinum toxin-A: is incomplete bladder emptying predictable? BJU Int. 2009; 103(5):630-4
3. Schmid MD, Sauermann P, Werner M, et al.: Experience with 100 cases treated with botulinum-a toxin injections in the detrusor muscle for idiopathic overactive bladder syndrome refractory to anticholinergics. The Journal of urology 2006;176:177-185.

Specify source of funding or grant	**no funding** **no ethical approval needed**
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	**It is a retrospective study to a treatment that is already in use.**
Was the Declaration of Helsinki followed?	**No**
This study did not follow the Declaration of Helsinki in the sense	**There was no need to follow the declaration since it is a**

that	**treatment that is already in use.**
Was informed consent obtained from the patients?	**No**