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Introduction & Objectives: The goal of the study was to assess the efficacy of onabotulinumtoxin A as a second line treatment for patients presenting with neurogenic detrusor overactivity for whom antimuscarinic therapy has failed.

Materials & Methods: A prospective, single center, study was conducted between 2015 -4 2017; the study included 22 patients with documented neurological conditions presenting detrusor overactivity refractory to anticholinergic medication. They were administered 200U of onabotulinumtoxin A by intradetrusor injections. The patients' perception upon the treatment benefit was assessed with OAB-q and QOL-VAS questionnaires. The urodynamic together with the clinical parameters obtained after the injection at certain time intervals were compared to baseline.

Results: The evaluation of the urodynamic parameters at 12, 24 and 36 weeks respectively showed: the reflex volume, maximum detrusor pressure during first involuntary contraction and the maximum cystometric capacity were significantly improved ($p < 0,05$) at 12 weeks compared to baseline; the vesical residue also increased significantly; at 24 weeks the improvement regarding the urodynamic parameters assessed was maintained but only the decrease of the maximum detrusor pressure during the first involuntary contraction was still statistically significant compared to baseline. Whereas at 36 weeks, the values of the urodynamic parameters were similar to the ones recorded at baseline.

In terms of clinical outcomes, the episodes of urinary incontinence decreased significantly ($p < 0,001$) and these results were maintained until the 36 week assessment.

The scores obtained from the questionnaires at 12, 24 and 36 weeks showed a significant patients satisfaction regarding the treatment.

Conclusions: Onabotulinumtoxin A proved to be an efficient therapeutic alternative for patients with detrusor overactivity refractory to anticholinergic medication, improving the clinical and urodynamic parameters, together with patient satisfaction.

Key words: neurogenic detrusor overactivity, onabotulinumtoxin A