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INTRAVESICAL GLUCIDIC CAPSAICIN VERSUS GLUCIDIC SOLVANT IN NEUROGENIC DETRUSOR OVERACTIVITY: A DOUBLE BLIND CONTROLLED RANDOMISED STUDY

Hypothesis / aims of study

The interest of vanilloids instillation for treating neurogenic detrusor overactivity (NDO) in spinal cord injured (SCI) patients is well established with an efficiency rate about 80% of the patients [1,2]. However, it remained limited in some patients by the poor tolerability of alcoholic vanilloids vesical administration largely due to the irritative effect of ethanol solvent [3].

The aim of our study was to evaluate the efficacy and tolerability of a new formulation of capsaicin diluted in glucidic solution.

Study design, materials and methods

Spinal cord injured patients suffering from urinary incontinence due to refractory NDO were prospectively enrolled in a double blind controlled study, and divided by randomisation between a capsaicin group (CG) and a solvent group (SG). On day 0 (D0), CG patients received an intravesical instillation of 100 ml capsaicin (1mM) diluted in glucidic solvent whereas SG patients received an intravesical instillation of 100 ml glucidic solvent alone. Efficacy (voiding chart, MCC) and tolerability were evaluated on D0, then 1 (D30) and 3 months (D90) after treatment.

Results

33 patients, including 17 patients in the CG (11F/6M, 14 MS/3SCI) and 16 patients in the SG ((13F/3M, 14MS/4SCI) were prospectively included and completed the study. On D0, the two groups were strictly homogeneous concerning clinical and urodynamical data. On D30, a significant improvement of continence, frequency and urgency were shown in CG, associated with an increase of MCC. The clinical benefit remained on D90 in the CG, without reaching the significance. None clinical nor urodynamical improvement were shown in the SG. Transient and minor side effects were respectively reported by 76.5% and 43.8% of the patients in the CG and SG ($p > 0.06$), without significant difference in the two groups as regard as prevalence, nature, duration, or intensity of side effects, excepted for supra-pubic pain during instillation which were more often reported in the CG (42.9%) than in the SG (16.7%) ($p < 0.001$).

Interpretation of results

This first controlled study using glucidic capsaicin suggest its efficacy in clinical and urodynamical parameters relief in NDO patients in the short term. The glucidic capsaicin showed rapid main effect, obtained during the first month then progressively decreased. The global tolerance of glucidic capsaicin appears milder as compared to previous study using 30% ethanol capsaicin [1,3].

Concluding message

Overall, our results suggest the valuability of glucidic solvent for capsaicin vesical administration and justify to evaluate the maintenance of its efficacy and tolerance in the long term.

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2) de Sèze M, Wiart L, de Sèze MP, Soyeur L, Dosque JP, Blazejewski S, Moore N, Brochet B, Mazaux JM, Barat M, Joseph PA. Intravesical capsaicin versus resiniferatoxin for treatment of detrusor hyperreflexia in spinal cord injured patient: a double-blind controlled randomised study: preliminary report. *J Urol* 2004; 171: 251-255.

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