

## DOES BACTERIAL VACCINE BECOME CLINICALLY SIGNIFICANT IN NEUROGENIC BLADDER PATIENTS AT CLEAN INTERMITTENT CATHETERIZATION?

### Hypothesis / aims of study

Neurogenic bladder patients have a high incidence of repeated urinary tract infections (RUTI), which usually mean hospital admission, massive antibiotic intake, between others, that worsen their quality of life (QoL). Our objective was to evaluate the clinical effect of vaccination in this population.

### Study design, materials and methods

We performed a retrospective study in our hospital over 17 patients with neurogenic bladder and RUTI (>3 episodes/year) who were vaccinated. We considered age at vaccination, genre, previous treatments, immunodeficiency conditions, number of clean intermittent catheterizations (CLI) and bacteria (positive culture). We compared UTI/year, blood leukocytes, emergency episodes, number of hospitalizations and infection-free months, before and after the vaccination, also time to revaccination. We performed a non-parametric correlation test (Rho spearman).

### Results

Variable	Median (range)	Difference (range)	p value
Age (years)	46 (18-67)	/	/
UTI per year			
P	4 (1-12)	4 (0-12)	0,9
V	0 (0-3)		
UTI-free months			
P	2,5 (0-12)	3,39 (0-10,34)	0,182
V	4,5 (0-9)		
Hospitalization			
P	1,5 (0-3)	0 (0-3)	<b>0,036</b>
V	0 (0-1)		
Leukocytes			
P	8.500 (4880-17.257)	1830 (1311-2049)	<b>&lt;0,001</b>
V	6.620 (5610-10.962)		
Emergencies			
P	1 (0-3)	0 (0-3)	0,094
V	0 (0-2)		

Quantitive results. (P: prior, V: postvaccination)

### Interpretation of results

The median number of CLI was 3 (0-6) we found no statistically significant association between number of CLI-UTI or CLI-UTI free months (p= 0,175 and p= 0,290 respectively). The most frequent prior and posterior positive culture (UC) was *E. coli*, 10 patients (58,82%) and 5 (29,41%) respectively. 14 patients (82,35%) were men. All had had previous antibiotic prophylaxis at least 6 months with at least two different types.

### Concluding message

Although no statistical significance was found probably due to low sample, there is a clear trend that vaccination would improve the number of UTI per year and UTI-free months in neurogenic patients, in fact, it significantly reduces hospitalization episodes and blood leukocytes per UTI. Moreover, most of the patients admit an improvement in their QoL since not having symptoms, besides positive UC, allow them to perform daily activities and restore the feeling of well-being.

### Disclosures

**Funding:** no **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** its normal use in clinical practice **Helsinki not Req'd:** o **Informed Consent:** No