Van Den Bossche H<sup>1</sup>, Van Der Aa F<sup>1</sup>, De Ridder D<sup>1</sup>

1. Urology, University Hospitals KU Leuven, Belgium

# CORRELATION BETWEEN THE ESSIC CLASSIFICATION FOR PAINFUL BLADDER SYNDROME / INTERSTITIAL CYSTITIS AND CLINICAL TREATMENT OUTCOME: A RETROSPECTIVE STUDY

## Hypothesis / aims of study

To retrospectively correlate the ESSIC 2008 classification with treatment outcome in patients with PBS/IC. This classification was proposed recently by the European Society for the study of IC/PBS to improve the quality of the studies on patients with interstitial cystitis/painful bladder.(1)Based on theoretical principles, the classification's clinical benefit remains to be proven.(2)

## Study design, materials and methods

Patient files of 45 patients, treated between 2002 and 2008, fulfilling ICS 2002 diagnostic criteria for PBS were reviewed. All 45 patients underwent diagnostic cystoscopy with hydrodistension under 80cm H<sub>2</sub>O. After hydrodistension, visible hemorrhagic lesions were coagulated with Holmium laser (5.0 Watt, 0.5 Joule). Cold cup biopsies were taken in 30 of 45 cases.

Cystoscopic an histologic data were used for retrospective classification in accordance with the 2008 ESSIC classification proposal. All patients were offered six weekly intravesical instillations with DMSO after the lasercoagulation.

Success was defined as a reduction of both bladder pain and nocturia by 50% for at least six months. A Student's T-test was performed to evaluate statistical significance between means. Categorical data were tested using Chi-square test.

#### Results

Of 45 patients, 8 patients had normal cystoscopy and were classified as ESSIC 1. Diagnosis of PBS could be retained in only 1 patient, all the others having 'confusable diseases' not allowing for the exclusion diagnosis of PBS.

37 out of 45 patients had visible lesions upon hydrodistension and were classified as ESSIC 2 (n=21) or ESSIC 3 (n=16). They all underwent Holmium lasering. 6 of 37 patients were lost to follow-up and excluded from further analysis. In 3 of 37 patients, confusable disease was later proven and they were excluded as well.

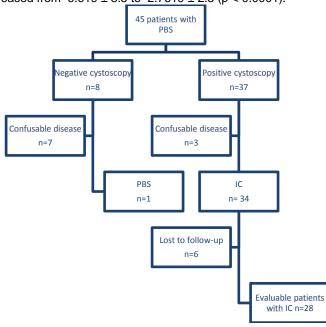
Of 30 biopsies, 3 showed normal findings and were classified as ESSIC A.

3 more biopsies were considered inconclusive and labelled ESSIC B. 24 biopsies were positive and classified as ESSIC C. In the ESSIC B and C groups, 1 and 4 patients had confusable disease respectively.

28 patients with typical cystoscopic findings and in the absence of other pathology were retained for evaluation of laser and DMSO treatment.

In the subgroup who only underwent laser therapy (19/28), success was reported in 14 out of 19 patients (73.7%). In the subgroup who agreed to undergo additional DMSO instillations (9/28), 7 out of 9 patients (77.8%) reported a favourable outcome. The difference in success rate between these groups was not statistically significant.

Preoperatively, bladder pain was reported by all patients. Bladder pain did improve after treatment in 25 out of 28 patients (89%). Mean nocturia decreased from  $6.619 \pm 3.5$  to  $2.7619 \pm 2.5$  (p < 0.0001).



Cystoscopic (ESSIC 2 versus ESSIC 3) or histologic classification of these 28 patients showed no statistically significant correlation with outcome.

		Cystoscopy with hydrodistension			
		X	1	2	3
Biopsy	Χ	0	3 (CD: 2)	7 (CD: 1)	5 (LFU: 2)
	Α	0	2 (CD: 2)	1 (CD: 1)	0
	В	0	1 (CD: 1)	1	1

С	0	2 (CD: 2)	12 (CD: 1; LFU: 1)	10 (LFU: 2)
	Ü	2 (05.2)	12 (05: 1, 2: 0: 1)	10 (2: 0: 2)

Table 1. Retrospective classification of 45 patients meeting clinical criteria for PBS.

CD = Confusable disease; LFU = Lost to follow-up

The most common confusable diseases that were encountered were: urethral diverticulum, neuropathic pain, pudendopathy. No carcinoma in situ was diagnosed!

## Interpretation of results

Patients with PBS without cystoscopic alterations (ESSIC 1 group) represent a minority of PBS patients (only 1 patient in our series). Negative cytoscopic findings often suggest the presence of confusable diseases in patients with possible PBS (87.5%) and thus cystoscopy remains essential for a correct diagnosis.

Negative histologic findings correlated with the presence of confusable disease in all patients.

This also means that an ESSIC A group was nonexistent in our series.

When appropriate selection of patients is applied, laser monotherapy has a response rate of 73.3% after six months. DMSO instillations did not increase this response rate.

A significant impact of histologic or cystoscopic classification on outcome could not be retained. New ESSIC classification is likely to lead to overdiagnosis and further confusion.

### Concluding message

Although the diagnosis of PBS is suspected after history and clinical examination, cystoscopy with hydrodistension remains essential to exclude confusable disease.

The ESSIC 2008 classification proposal does not correlate with therapy outcome and is not helpful in therapeutical decision making. The histological classification is not helpful.

Holmium laser monotherapy has a good response rate after six months. Additional DMSO instillations did not add to this effect.

## References

- 1. Van de Merwe JP et al. Diagnostic criteria, classification and nomenclature for painful bladder syndrome/IC: an ESSIC proposal. Eur Urol 2008;53:60-7
- 2. Mouracade P et al. Using the interstitial cystitis new diagnostic criteria in daily practice: about 156 patient. Prog Urol, 2008;18:647-7

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 eithics committee approval because	Retrospective clinical chart analysis does not require ethical approval according to Belgian Law.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	No