

HOW TO EVALUATE A BPS/IC PATIENT



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BPS/IC Definition 2008

- *BPS/IC is an unpleasant sensation – pain, pressure, discomfort – perceived to be related to the urinary bladder, associated with lower urinary tract symptoms of more than 6 weeks duration, in the absence of infection or other identifiable causes*

Hanno, Neurourol Urodyn 2009,28: 274-286

CONFUSABLE DISEASES FOR BPS/IC

- carcinoma
- carcinoma *in situ*
- infection with common intestinal bacteria
- *Chlamydia trachomatis*
- *Ureaplasma urealyticum*
- *Mycoplasma hominis*
- *Mycoplasma genitalium*
- *Corynebacterium urealyticum*
- *Mycobacterium tuberculosis*
- *Candida* species
- *Herpes simplex*
- *Human Papilloma Virus*
- radiation
- chemotherapy, including immunotherapy with cyclophosphamide
- anti-inflammatory therapy with tiaprofenic acid
- bladder neck obstruction
- neurogenic outlet obstruction
- bladder stone
- lower ureteric stone
- urethral diverticulum
- urogenital prolapse
- endometriosis
- vaginal candidiasis
- cervical, uterine and ovarian cancer
- incomplete bladder emptying (retention)
- overactive bladder
- prostate cancer
- benign prostatic obstruction
- chronic bacterial prostatitis
- chronic non-bacterial prostatitis
- pudendal nerve entrapment,

Eur Urol Today; March 2006: pp 6,7,16,17

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BPS/IC is a syndrome, which means it is a combination of defined symptoms, which are the base for diagnosis

- 
- **Diagnosis is made by symptoms**
 - **No confirmative investigations available**
 - **Exclusion of confusable diseases!**
 - **Cystoscopy not necessary for diagnosis**
 - **Do NOT do biopsy (except for tumor exclusion) for diagnosis**
 - **NO Urodynamics**
 - **NO (urine) markers**

DIAGNOSTIC ALGORITHM FOR BPS/IC

The best diagnostic instrument



DIAGNOSTIC ALGORITHM FOR BPS/IC

- ⦿ Symptoms of Cystitis/UTI without infection in cultures (urinary culture, vaginal smear bacteriology including STD diagnostics), lasting > 6 weeks
- ⦿ Symptoms: constant urgency, high frequency of micturition (voiding charts) with inadequate volumes, nocturia not necessarily found, increasing pain with bladder filling that is relieved with emptying

DIAGNOSTIC ALGORITHM FOR BPS/IC

- ⦿ Typical history: antibiotics and anticholinergics do not improve symptoms
- ⦿ Not BPS/IC: pain in vulvar region, genital pain, perineal pain – PELVIC PAIN SYNDROME!
- ⦿ ASK FOR:
- ⦿ Gynecology report, IUD! Antiestrogens
- ⦿ Lumbalgia

- STD/Ureaplasma and
• chronic bladder symptoms

- 48% infection rate, 90% improvement
after antibiotic therapy (Potts, Urology 2000)
- 34% infection rate, 71 % improvement
after antibiotics (Latthe, J.Obstet.Gynaecol. 2008)
- 43% infection rate, 72% improved
(Lee, Korean J.Urol.2010)

DIAGNOSTIC ALGORITHM FOR BPS/IC

High probability for BPS/IC

- ⊙ Autoimmune disease/chronic polyarthritis
- ⊙ Hypothyreosis (Hashimoto thyroiditis)
- ⊙ Irritable bowel syndrome
- ⊙ Fibromyalgia
- ⊙ Sjogren Syndrome
- ⊙ Fatigue Syndrome

Typical concomitant diseases

DIAGNOSTIC ALGORITHM FOR BPS/IC

DO (for exclusion of confusable diseases):

- Ultrasound of full bladder, residual urine
- Voiding diary
- Dietary assessment
- Modified Potassium Test
- Cystoscopy (in patients at risk for cancer) / cytology
- MRT of lumbar spine
- Abdominal CT scan
- In men: prostate evaluation

DIAGNOSTIC ALGORITHM FOR BPS/IC

- ⦿ Symptom score:
 - Pain/Global Symptom Assessment VAS 10
- ⦿ BPIC-SS
- ⦿ (PUF/O'Leary-Sant)
- ⦿ In suspicion of neuropathic pain: LANSS Score

Bladder Pain/Interstitial Cystitis Symptom Score (BPIC-SS) Version 3.0, 23/Sept/10, US English

Bladder Pain/ Interstitial Cystitis Symptom Score (BPIC-SS)When answering the following questions, please think about the **PAST 7 DAYS**To be
completed
by study
staff

	Never	Rarely	Sometimes	Most of the time	Always	SCORE
1. In the past 7 days when you urinated, how often was it because of pain in your bladder?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	
2. In the past 7 days, how often did you still feel the need to urinate just after you urinated?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	
3. In the past 7 days, how often did you urinate to avoid pain in your bladder from getting worse?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	
4. In the past 7 days, how often did you have a feeling of pressure in your bladder?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	
5. In the past 7 days, how often did you have pain in your bladder?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	

	Not at all	A little	Somewhat	Moderately	A great deal
6. In the past 7 days, how bothered were you by frequent urination during the daytime?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄
7. In the past 7 days how bothered were you by having to get up during the night to urinate?	<input type="checkbox"/> ₀	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄

8. Select the number that best describes your worst bladder pain in the past 7 days										
No bladder Pain										Worst possible bladder pain
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	1	2	3	4	5	6	7	8	9	10

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Add the scores for each question together to give a total BPIC-SS score	TOTAL SCORE =	
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Total score ranges from 0 - 38. A total score can only be calculated if ALL questions are completed by the patient

Differential Diagnosis of BPS/IC

	Urinary Culture	STD/vaginal smear	Permanent Symptoms	History
BPS/IC	-	-	+	+
Rec.UTI	+	+/-	-	-
STD	+/-	+	+/-	-
Other Forms of Chronic Cystitis	-	-	+	+

Differential Diagnosis of BPS/IC

	Ultrasound	Urodynamics	Incontinence	Others
BPS/IC	-	- (only KCl!)	-	PAIN
OAB	-	+	+/-	NO PAIN
Endometriosis (cyclic symptoms)	-/+	-	-	LSK, CA125, MRT
Subvesical Obstruction	+	+	-	Cystoscopy

Table 1. Overview of the chronic pelvic pain syndromes.

Urological pain syndromes

Bladder pain syndrome (BPS) ^a	Pain in the urinary bladder region, accompanied by at least one other symptom: Pain worsening with bladder filling Day-time and/or night-time urinary frequency
Urethral pain syndrome	Pain perceived in the urethra
Penile pain syndrome	Pain within the penis that is not primarily in the urethra
Prostate pain syndrome	Pain that is convincingly reproduced by prostate palpation
Scrotal pain syndrome	Pain localized within the organs of the scrotum; generic term when the site of the pain is not clearly testicular or epididymal
Testicular pain syndrome	Pain perceived in the testes
Postvasectomy pain syndrome	Scrotal pain syndrome that follows vasectomy
Epididymal pain syndrome	Pain perceived in the epididymis

Gynaecological pain syndromes

Vulvar pain syndrome	Vulvar pain (according to ISSVD: vulvodynia is vulvar pain that is not accounted for by any physical findings)
Generalized vulvar pain syndrome	Pain/burning that cannot be consistently and precisely localized by point-pressure mapping
Localized vulvar pain syndrome	Pain that can be consistently and precisely localized by point-pressure mapping to one or more portions of the vulva
Vestibular pain syndrome	Pain that can be localized by point-pressure mapping to the vestibule or is well perceived in the area of the vestibule
Clitoral pain syndrome	Pain that can be localized by point-pressure mapping to the clitoris or is well perceived in the area of the clitoris
Endometriosis-associated pain syndrome	Pain with laparoscopically confirmed endometriosis, when the symptoms persist despite adequate endometriosis treatment
CPPS with cyclical exacerbations	Non-gynaecological organ pain that frequently shows cyclical exacerbations (e.g., IBS or BPS) and differs from dysmenorrhoea, in which pain is only present with menstruation
Dysmenorrhoea	Pain with menstruation

Musculoskeletal pain syndromes

Pelvic floor muscle pain syndrome	Pelvic floor pain that may be associated with overactivity of or trigger points within the pelvic floor muscles or trigger points found in muscles, such as the abdominal, thigh and paraspinal muscles and even those not directly related to the pelvis
Coccyx pain syndrome	Pain perceived in the region of the coccyx

Gastrointestinal pelvic pain syndromes

Irritable bowel syndrome (IBS)	Pain perceived in the bowel, according to the Rome III criteria
Chronic anal pain syndrome	Pain perceived in the anus
Intermittent chronic anal pain syndrome	Pain unrelated to the need to defecate or the process of defecation, that seems to arise in the rectum or anal canal

Pudendal pain syndrome

^aInternational Society for the Study of BPS (ESSIC) proposal.

CPPS = chronic pelvic pain syndrome; ISSVD = International Society for the Study of Vulvovaginal Disease.

Adapted from Engeler et al. [2].

New concepts on functional chronic pelvic pain

- **Concept of organic lesions responsible for a persistent nociceptive factor has gradually been replaced by that of dysregulation of nociceptive messages**

Ploteau, Discov.Med.2015

New concepts on functional chronic pelvic pain

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- Pain dependent on capacity to activate pain inhibition/control processes

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- Pain dependent on capacity to activate pain inhibition/control processes
- Pain not derived from but expressed via organ
- **Organ treatment not effective (despite patients perception)**

Ploteau, Discov.Med.2015

New concepts on functional chronic pelvic pain

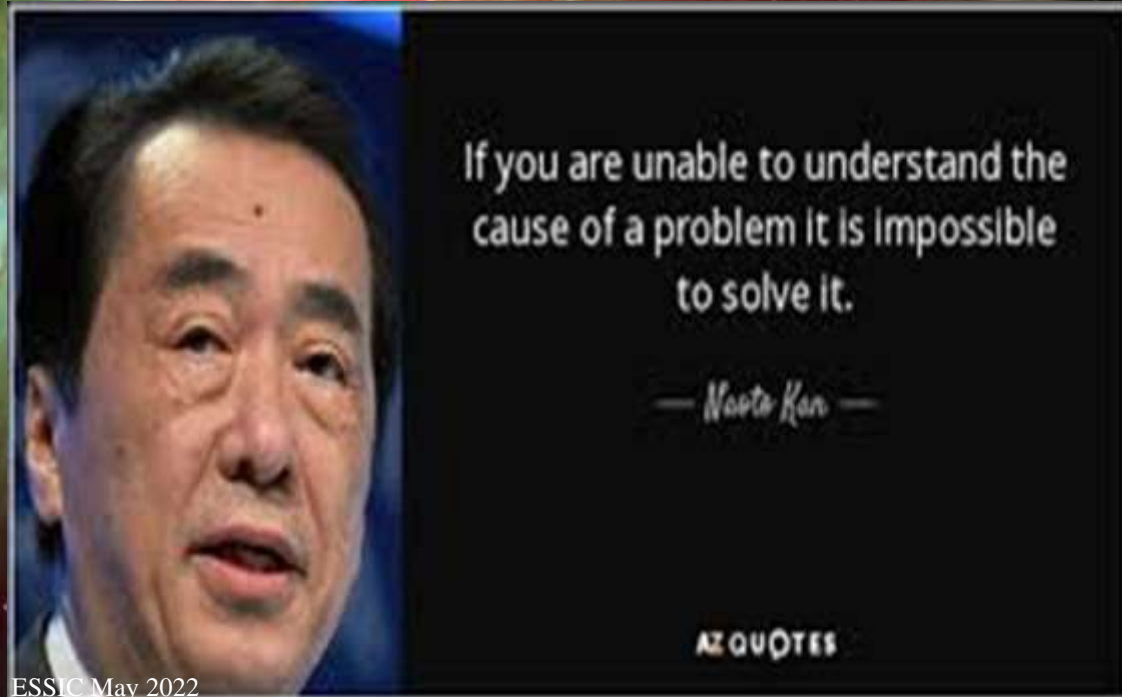
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- Pain not derived from but expressed via organ
- Organ treatment not effective (despite patients perception/intention)

**Neuropathic pain, central sensitization,
complex regional pain syndrome, stress disorder**

ESSIC May 2022

Ploteau, Discov.Med.2015

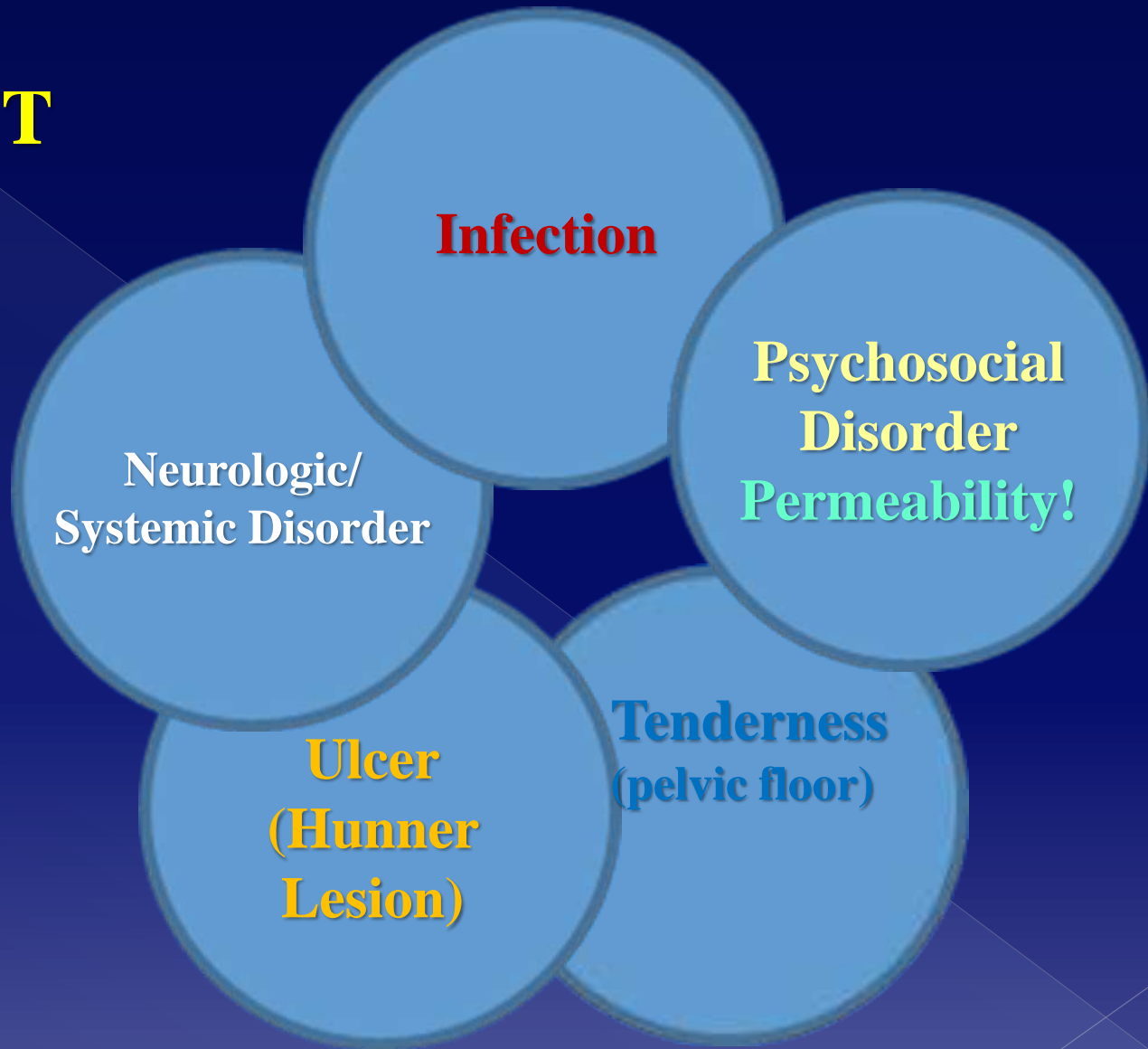
Etiologic Heterogeneity of BPS/IC

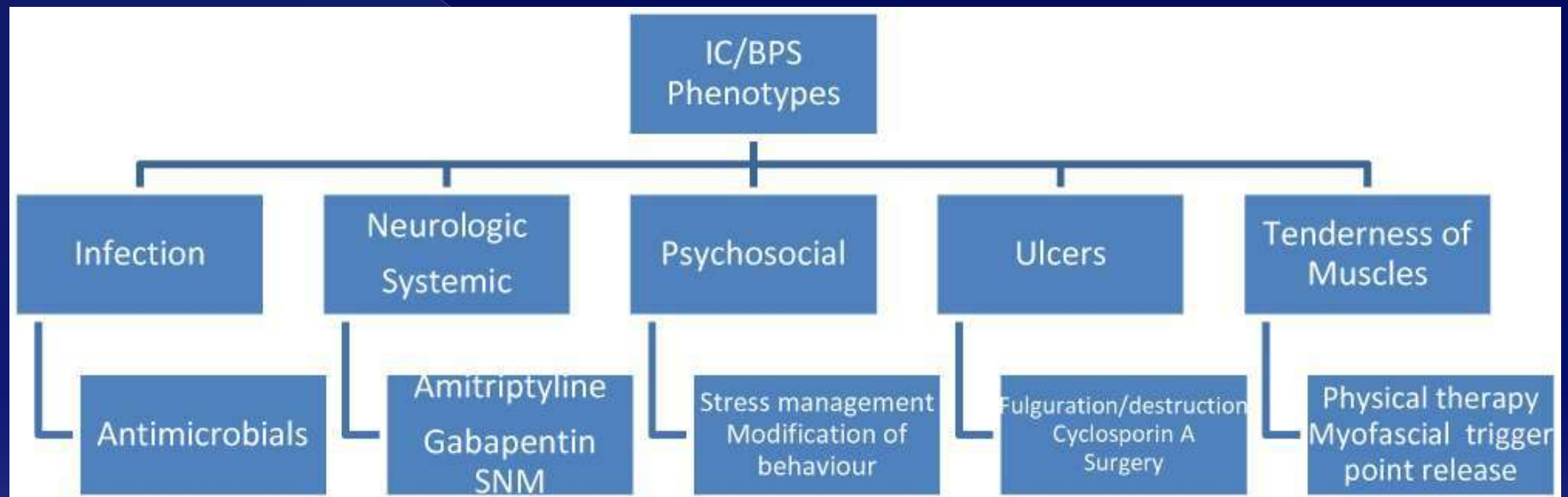


New diagnostic approach

PHENOTYPING OF BPS/IC PATIENTS

INPUT





Permeability

GAG
substitution

INPUT for Phenotyping BPS/IC

- Infection
- Neurologic/systemic disease
- Psychosocial disorders
- Ulcer (Hunner Lesion)
- Tenderness (of Pelvic Floor)
- 11%-51%-81%-18%-85% (average 2.5 domains positive)
 - Crane, Can.J.Urol.2018

● www.upointmd.com

KEY MESSAGES

1) Recognize BPS/IC, also in men!

2) Confirm diagnosis

3) Phenotype patients

***4) Choose therapeutic approach with regard to
phenotype and guidelines***

***... THIS MAY MAKE THE
DIFFERENCE TO YOUR
PATIENTS LIVES***





ESSIC May 2022



ESSIC May 2022