



GLOBAL INTERSTITIAL CYSTITIS  
BLADDER PAIN SOCIETY

Volume 7 Issue 3 || March 2025

# GIBS NEWSLETTER



## TREATMENT OF NOCTURIA WITH MELATONIN IN PATIENTS WITH INTERSTITIAL CYSTITIS

### **Latest Updates**

#### **5th GIBS International IC/BPS Patients Day**

HYBRID - 9th March

Online:

2PM - 4PM IST

Offline centres:

1) Indraprastha Apollo Hospital, New Delhi

11:00AM - 4:00PM IST

2) Surya Hospital, Santacruz, Mumbai

1:30PM - 4:00PM IST

#### **DECADE Celebration!! 10th Annual Congress on IC/BPS - GIBS 2025**

Date: 23rd & 24th August 2025

Venue: Kokilaben Dhirubhai Ambani  
Hospital, Mumbai

Theme: Decode, Demystify, Drive IC/BPS

Interstitial Cystitis/Bladder Pain Syndrome is characterized with pain, urgency and nocturia (waking to pass urine during the main sleep period, ICS definition). Nocturia is a symptom with severe negative impact on quality of life [1]. Hence, treatment of nocturia (nocturnal desire to micturition) and nocturnal pain is an important part of management of IC/BPS. Unfortunately, there are not many treatment options for the nocturia. Lifestyle modification includes reducing caffeine intake as well as limitation of drinking after the 18.00. Personalized diet can be helpful, but not much. Alkalinized drinking is a promising option, but with limited evidence.

Some urologists recommend bladder instillations or self-instillations of local anesthetics or “cocktails” before going to bed. It works, especially with mucoadhesive compounds, but is complicated for the patients.

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### Upcoming Newsletter - April 2025

#### Sacral Neuromodulation in Bladder Pain Syndrome

#### Abstract

The chronic illness known as Bladder Pain Syndrome (BPS) is characterized by persistent pain or discomfort in the bladder area, frequently accompanied with urgency and frequent urination. This illness can have a major impact on day-to-day living, making routine tasks challenging. Although there are numerous methods for treatment, sacral neuromodulation (SNM) has shown promise. The origins of BPS, the operation of SNM, its efficacy, its beneficiaries, possible hazards, and upcoming developments are all explained in this review.

### Stay Tuned!!!

#### AUTHOR



**Dr. Yakov Mirkin**

URO-PRO Clinics, Chief Scientific  
Officer, Riviera Biotech, CEO  
Association of Chronic Pelvic Pain  
Specialists, Co-Founder  
GIBS LIFETIME MEMBER

Oral medications include amitriptyline [2], mirabegron [3], desmopressin [4].

Recent trials have demonstrated efficacy of melatonin for pain relief as well as for nocturia treatment.

Melatonin induces sleep; also, it has additional effects, such as smooth muscles relaxation, anti-inflammatory, pain reducing and so on [5].

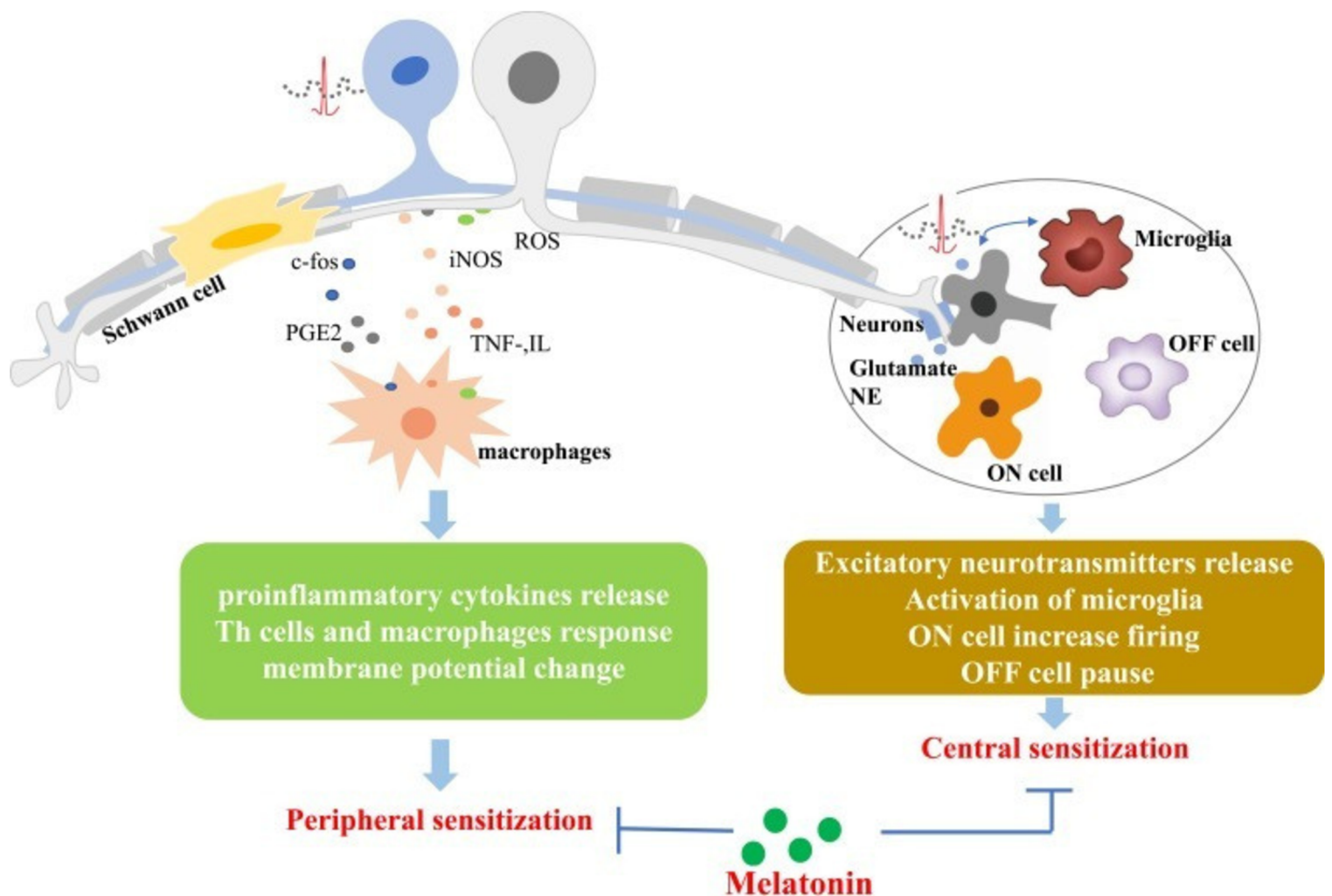
Leerasiri and others published results of randomized control trial: 60 women with nocturia had been divided into treatment group (melatonin 2 mg for 2 weeks) and placebo group. Outcome measures included nocturia episodes, nocturia-related parameters, Nocturia Quality of Life Questionnaire (N-QoL) scores and adverse events. The treatment group had significantly better outcomes than the placebo group in terms of median reduction in nocturia episodes/night, increased median duration of the first uninterrupted sleep, and improvement in N-QoL scoring [6].

M.J.Park and others performed randomized trial with prolonged release melatonin (Circadin 2 mg) with promising results: significant improvements were observed in total Overactive bladder symptom score (OABSS) and nocturia frequencies at 12 weeks [7].

Pre-treatment with melatonin decreases contractile responses of the bladder induced by phenylephrine, acetylcholine, bethanechol and KCl. Mast cell proliferation and activation are increased in cystitis, but decrease by melatonin treatment. Also, there is a decrease in expression levels of pro-inflammatory cytokines after melatonin treatment [8]. Melatonin has central effects on bladder function as well. Melatonin reinforces the action of the central nervous system GABAergic system [9].



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Ramsey and Zagorodnyuk demonstrated a direct inhibitory effect of melatonin on the mechanosensitivity of low threshold stretch-sensitive muscular-mucosal bladder afferents acting via MT2 receptors, which is independent from its action on detrusor muscle. Melatonin did concentration-dependently, significantly inhibit 69% of muscular-mucosal afferents responses to stroking and bladder stretch. This may have important clinical implications for the treatment of many common bladder disorders including nocturia [10].

Zhang et al., evaluated efficacy of melatonin with cyclophosphamide induced cystitis: CP injection resulted in severe cystitis with increase in voiding behaviors, histological damage, mast cell proliferation, SP, and proinflammatory cytokine expression, which were significantly downregulated by melatonin pretreatment. Pretreatment with melatonin further enhanced the expression of HO-1 and significantly reduced iNOS expression. Melatonin significantly improved bladder symptoms and histological damages in rats with CP-induced cystitis by diminishing bladder oxidative stress, blocking iNOS, upregulation of HO-1, and downregulating the expression of SP [11].



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It's a very important, that melatonin can attenuate peripheral and central sensitization. Both types of sensitization play important role in bladder pain pathogenesis [5].

Thus, melatonin is a perspective medicine for treatment of nocturia in IC/BPS patients.

Researching group of GIBS has developed prolonged release hydrogel with melatonin: 3 mg/5 ml. Releasing starts 60 minutes after taking and lasts for 8 hours. Preliminary results of pilot study showed efficacy of 9 mg of melatonin in prolonged released hydrogel. 8 female patients have taken hydrogel with melatonin every day before going to asleep. They started from 3 mg and increased the dose every day for 1.5 mg. until 9 mg. The average number of nighttime urinations decreased from 11.8 to 3.7. The research is ongoing.

In conclusion, it should be said that nocturia in interstitial cystitis negatively affects the quality of life of patients and melatonin may be a solution to this problem.

## References:

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GLOBAL INTERSTITIAL CYSTITIS  
BLADDER PAIN SOCIETY

MARCH 9TH | 2:00PM  
HYBRID

# FIFTH

## GIBS INTERNATIONAL IC/BPS PATIENT'S DAY



DECODE



DEMYSTIFY



DRIVE

FOR BLADDER PAIN WARRIORS

IT'S THAT TIME OF THE YEAR TO TALK ABOUT IC/BPS

"YOU'RE NOT ALONE: JOIN THE GLOBAL MOVEMENT TO BEAT BLADDER PAIN!"

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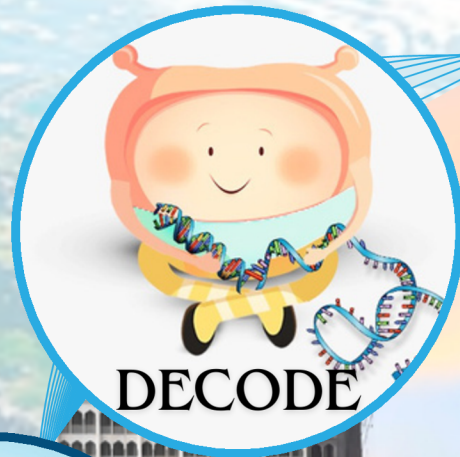
# ANNUAL CONFERENCE

## Celebrating a Decade!

AUGUST 23<sup>rd</sup> & 24<sup>th</sup>, 2025

### HIGHLIGHTS

- ✓ Advances in IC/BPS
- ✓ Workshops
- ✓ Orations from Subject Expert around the Globe!



Kokilaben Dhirubhai Ambani Hospital, Mumbai, India

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*Celebrating a Decade!*



GLOBAL INTERSTITIAL CYSTITIS  
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### CALL FOR ABSTRACT

**LAST DATE FOR SUBMISSION: MAY 01ST, 2025**

- ✓ Presentation Format: In Person
- ✓ Date: 24th August 2025
- ✓ Time: 09:00AM - 10:30AM IST
- ✓ Finalist Announcement: By 10th May
- ✓ Limited Slots Available!
- ✓ Registration: Mandatory!



Kokilaben Dhirubhai Ambani  
Hospital, Mumbai, India

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