

IS CHRONIC PROSTATITIS/CHRONIC PELVIC PAIN SYNDROME ASSOCIATED WITH CHRONIC RHINOSINUSITIS?: A STUDY BASED ON “NATIONAL INSTITUTE OF HEALTH- CHRONIC PROSTATITIS SYMPTOM INDEX” AND “SINONASAL OUTCOME TEST-22” QUESTIONNAIRES

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April 27, 2021

Abstract

Objectives/Aims: Prostatitis is a common entity that is seen in younger than 50 years old men in urology clinics. Subcategory of chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) accounts for more than 90% of cases of prostatitis and heterogeneous symptoms cause negative impact on quality of life. Chronic rhinosinusitis (CRS) is a common inflammatory disease of the upper airways and results in a constellation of symptoms that have a significant negative effect on a patient's quality of life, either. However, both of these entities may share an inflammatory background because of systemic inflammatory responses and endocrine effects of cytokines. In this study, we aimed to find if any symptomatic correlation between CP/CPPS and CRS that can be measurable with National Institute of Health- Chronic Prostatitis Symptom Index (NIH-CPSI) and Sinonasal Outcome Test-22 (SNOT-22) validated symptom scores. **Methods:** Patients from urology (n:113) and ear-nose-throat (ENT) clinics (n:104) are included in this study. They were questioned with NIH-CPSI and SNOT-22. Also, they were evaluated if there was a correlation between these scores and some parameters (e.g. age, marital status, smoking, masturbation frequency, concomitant inflammatory diseases). **Results:** As our main result we found out a low-moderate correlation between NIH-CPSI and SNOT-22 scores (r:0.370 for urology, r: 0.466 for ENT patients). **Conclusions:** In this study we found that, CP/CPPS and CRS have a low correlated relationship symptomatically. We suggest that with further studies and additional data, CP/CPPS and CRS symptom relation might have been connected to a possible main root.

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Figure1a.pdf available at <https://authorea.com/users/410440/articles/519824-is-chronic-prostatitis-chronic-pelvic-pain-syndrome-associated-with-chronic-rhinosinusitis-a-study-based-on-national-institute-of-health-chronic-prostatitis-symptom-index-and-sinonasal-outcome-test-22-questionnaires>

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Figure 1b.pdf available at <https://authorea.com/users/410440/articles/519824-is-chronic-prostatitis-chronic-pelvic-pain-syndrome-associated-with-chronic-rhinosinusitis-a-study-based-on-national-institute-of-health-chronic-prostatitis-symptom-index-and-sinonasal-outcome-test-22-questionnaires>

| NIH Chronic Prostatitis Symptom Index (NIH-CPSI) | |
|--|--|
| <ul style="list-style-type: none">• <u>Pain or Discomfort</u> | 6) How often have you had to urinate again less than two hours after you finished urinating, over the last week? a) Not at all (0) b) Less than one time in five (1) c) Less than half the time (2) d) About half the time (3) e) More than half the time (4) f) Almost always (5) |
| 1) In the last week, have you experienced any pain or discomfort in the following areas? (yes or no) a) Area between rectum and testicles (perineum) b) Testicles c) Tip of the penis (not related to urination) d) Below your waist, in your pubic or bladder area | • <u>Impact of Symptoms</u> |
| 2) In the last week, have you experienced: (yes or no) a) Pain or burning on urination? b) Pain or discomfort during or after sexual climax (ejaculation)? | 7) How much have your symptoms kept you from doing the kinds of things you would usually do, over the last week? a) none (0) b) Only a little (1) c) Some (3) d) A lot (4) |
| 3) How often have you had pain or discomfort in any of the these areas over the last week? a) Never (0) b) Rarely (1) c) Sometimes (2) d) Often (3) e) Usually (4) f) Always (5) | 8) How much did you think about your symptoms last week? a) None (0) b) Only a little (1) c) Some (2) d) A lot (3) |
| 4) Which number best describes your AVERAGE pain or discomfort on the days that you had it, over the last week? (Circle) 0 1 2 3 4 5 6 7 8 9 10 0 = No Pain 10 = Pain as bad as you can imagine. | • <u>Quality of Life</u> |
| <ul style="list-style-type: none">• <u>Urination</u> | 9) If you were to spend the rest of your life with your symptoms just the way they have been during the last week, how would you feel about that? a) Delighted (0) b) Pleased (1) c) Mostly satisfied (2) d) Mixed (about equally satisfied and dissatisfied) (3) e) Mostly dissatisfied (4) f) Unhappy (5) g) Terrible (6) |
| 5) How often have you had a sensation of not emptying your bladder completely after you finished urinating over the last week? a) Not at all (0) b) Less than one time in five (1) c) Less than half the time (2) d) About half the time (3) e) More than half the time (4) f) Almost always (5) | <u>Scoring NIH-CPSI Index Domains:</u> Pain: Total of items 1a, 1b, 1c, 1d, 2a, 2b, 3 and 4 = ____ (0 to 21) Urinary symptoms: Total of items 5 and 6 = ____ (0 to 10) Quality of life Impact: Total of items 7, 8 and 9 = ____ (0 to 12) Higher score indicate worse outcomes in all domains. |

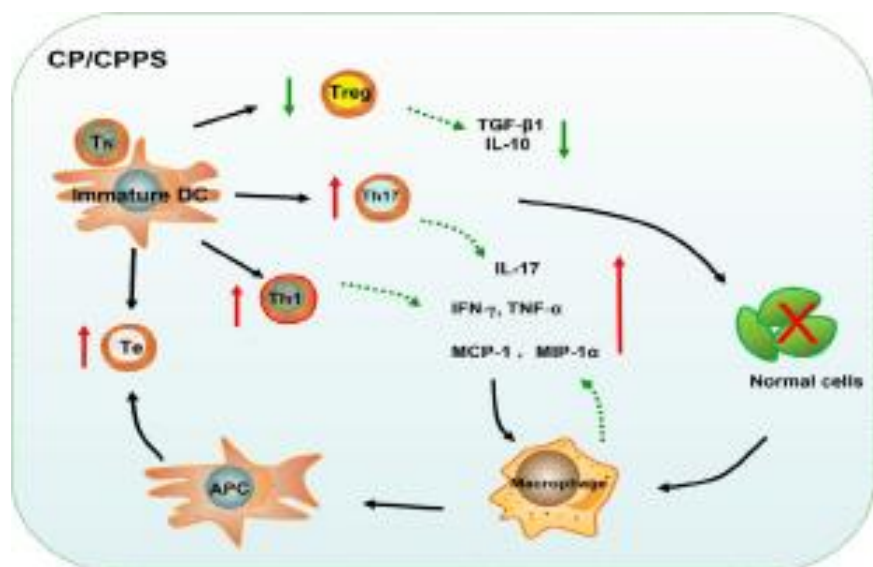
Sino-Nasal Outcome Test-22 Questionnaire v4

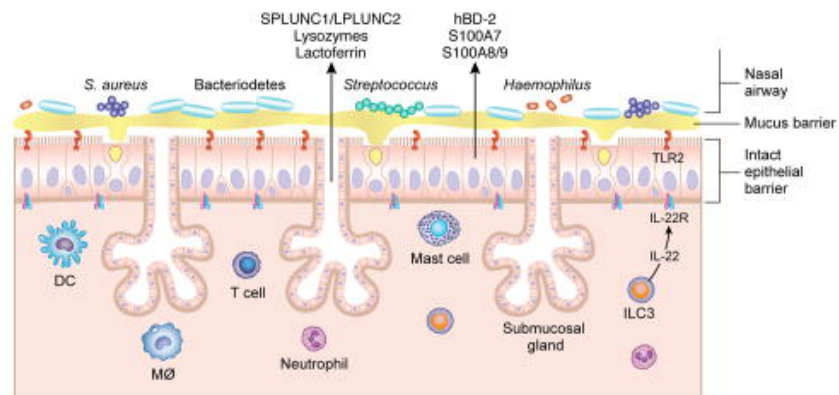
Below you will find a list of symptoms and social/emotional consequences of your nasal disorder. We would like to know more about these problems and would appreciate you answering the following question to the best of your ability. There are no right or wrong answers, and only you can provide us with this information. Please rate your problems, as they have been over the past two weeks. Thank you for your participation.

Considering how severe the problem is when you experience it and how frequently it happens, please rate each item below on how 'bad' it is by circling the number that corresponds with how you feel using this scale →

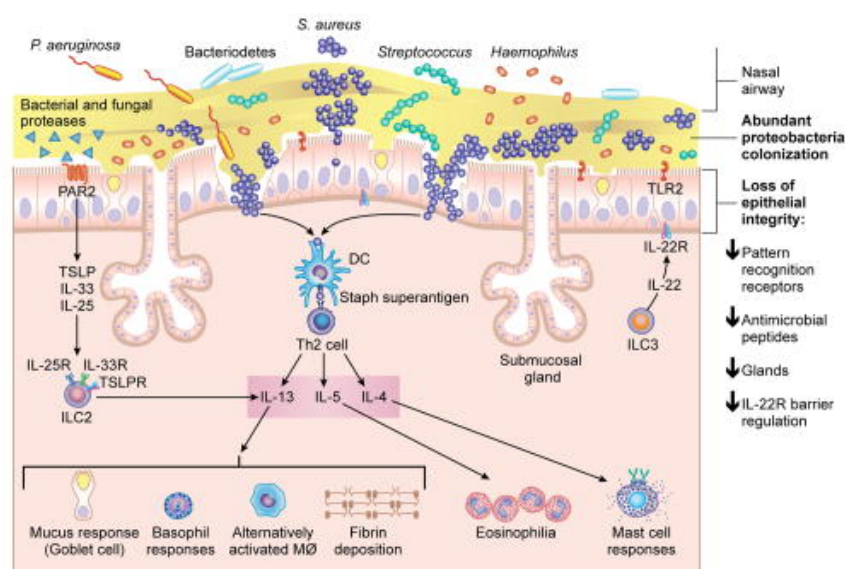
| | No problem | Very mild problem | Mild or slight problem | Moderate problem | Severe problem | Problem as bad as it can be |
|---|------------|-------------------|------------------------|------------------|----------------|-----------------------------|
| 1. Need to blow nose | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. Sneezing | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. Runny nose | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. Cough | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. Post nasal discharge (dripping at the back of your nose) | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. Thick nasal discharge | 0 | 1 | 2 | 3 | 4 | 5 |
| 7. Ear fullness | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. Dizziness | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. Ear pain/pressure | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. Facial pain/pressure | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. Difficulty falling asleep | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. Waking up at night | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. Lack of a good night's sleep | 0 | 1 | 2 | 3 | 4 | 5 |
| 14. Waking up tired | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. Fatigue during the day | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. Reduced productivity | 0 | 1 | 2 | 3 | 4 | 5 |
| 17. Reduced concentration | 0 | 1 | 2 | 3 | 4 | 5 |
| 18. Frustrated/restless/irritable | 0 | 1 | 2 | 3 | 4 | 5 |
| 19. Sad | 0 | 1 | 2 | 3 | 4 | 5 |
| 20. Embarrassed | 0 | 1 | 2 | 3 | 4 | 5 |
| 21. Sense of taste/smell | 0 | 1 | 2 | 3 | 4 | 5 |
| 22. Blockage/congestion of nose | 0 | 1 | 2 | 3 | 4 | 5 |

TOTAL: _____





Normal nasal mucosa



Chronic rhinosinusitis (CRS)

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Table 2.xlsx available at <https://authorea.com/users/410440/articles/519824-is-chronic-prostatitis-chronic-pelvic-pain-syndrome-associated-with-chronic-rhinosinusitis-a-study-based-on-national-institute-of-health-chronic-prostatitis-symptom-index-and-sinonasal-outcome-test-22-questionnaires>