

α -blockers, antibiotics and anti-inflammatories have a role in the management of chronic prostatitis/chronic pelvic pain syndrome

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Abstract

Objectives: To provide an updated network meta-analysis mapping α -blockers, antibiotics and anti-inflammatories (the 3-As) in chronic prostatitis/chronic pelvic pain syndrome (CP/ CPPS). To use the results of this meta-analysis to comment on the role of the 3-As in clinical practice

Method: We updated a previous review including only randomized controlled studies employing the National Institutes of Health Chronic Prostatitis Symptom Index (NIH-CPSI) as one of the outcomes to compare treatment effects in CP/ CPPS patients. A longitudinal mixed regression model (network meta-analysis) was applied to indirectly assess multiple treatment comparisons (i.e. α -blockers, antibiotics, anti-inflammatory/immune modulation therapies, α -blockers plus antibiotics, and placebo).

Results: Nineteen studies (1669 subjects) were eligible for analysis. α -blockers, antibiotics and anti-inflammatory/immune modulation therapies were associated with significant improvement in symptoms when compared with placebo, with mean differences of total CPSI of -10.8 (95% CI -13.2 to -8.3; $P < 0.001$), -9.7 (95% CI -14.2 to -5.3; $P < 0.001$) and -1.7 (95% CI -3.2 to -0.2; $P = 0.032$), respectively, while α -blockers plus antibiotics resulted in the greatest CPSI difference (-13.6, 95% CI -16.7 to -10.6; $P < 0.001$). With respect to responder analysis compared with placebo, anti-inflammatories showed the greatest response rates (risk ratio 1.7, 95% CI 1.4 - 2.1; $P < 0.001$) followed by α -blockers (risk ratio 1.4, 95% CI 1.1 - 1.8; $P = 0.013$) and antibiotics (risk ratio 1.2, 95% CI 0.7 - 1.9; $P = 0.527$).

Conclusion: α -blockers, antibiotics and/or anti-inflammatory/immune modulation therapy appear to be beneficial for some patients with CP/ CPPS. The magnitude of effect and the disconnect between mean CPSI decrease and response rates compared with placebo suggest that directed multimodal therapy, rather than mono-therapy, with these agents should be considered for optimal management of CP/ CPPS.

Keywords: chronic prostatitis/chronic pelvic pain syndrome, chronic prostatitis, α -blockers, antibiotics, anti-inflammatories, meta-analysis

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