Role of alpha-blockers in type III prostatitis: a systematic review of the literature

Mishra V C, Browne J, Emberton M

CRD summary
This review found insufficient evidence on the effectiveness of alpha-blockers for type III prostatitis. Despite weaknesses in the research methodology, the authors’ conclusions seem reliable based on the evidence presented.

Authors' objectives
To examine the effectiveness of alpha-blockers for type III prostatitis.

Searching
MEDLINE, EMBASE and the Cochrane Library were searched from 1999 onwards (the year the NIH-CPSI was first available); the search terms were reported. Reference lists of identified articles, reviews and abstracts from recent international urology conferences were also searched. An expert was contacted to check for missed studies. The search was restricted to English language papers.

Study selection
Study designs of evaluations included in the review
Full papers or abstracts of randomised controlled trials (RCTs) were eligible for inclusion.

Specific interventions included in the review
Studies that compared alpha-blockers with placebo were eligible for inclusion. Studies that compared alpha-blockers and antibiotics with placebo were excluded if no group received alpha-blockers alone. The included studies evaluated alfuzosin, terazosin and tamsulosin (dosages were reported). The duration of the interventions varied from 6 weeks to 6 months.

Participants included in the review
Studies of men with type III prostatitis were eligible for inclusion. Where reported, the age of the participants varied across the studies: the largest range was 20 to 70 years. Most of the studies included men that had prostatitis symptoms for at least 3 months.

Outcomes assessed in the review
Studies that reported symptoms measured using the National Institutes of Health-Chronic Prostatitis Symptom Index (NIH-CPSI) were eligible for inclusion. Other outcomes assessed were voiding and quality of life.

How were decisions on the relevance of primary studies made?
One reviewer assessed the eligibility of the studies by applying the inclusion criteria.

Assessment of study quality
Study quality was assessed in terms of randomisation, double-blinding and drop-outs, using the Jadad scale to obtain a quality score out of 5. The authors did not state how many reviewers assessed quality.

Data extraction
The authors extracted mean pre- and post-treatment NIH-CPSI scores, plus standard deviations and 95% confidence intervals, when available. They also extracted treatment effects for total and domain scores, defined as the difference from baseline scores between the comparison groups. The authors did not state how many reviewers performed the data extraction.

Methods of synthesis
How were the studies combined?
The studies were combined in a narrative.
How were differences between studies investigated?
The studies were summarised separately in the tables and the text; the results from full papers were reported before those for abstracts. The authors discussed several sources of clinical heterogeneity between the studies.

Results of the review
Six RCTs (n=386) were included: 4 full papers (n=295) and 2 abstracts (n=91).

The quality scores of 4 RCTs (full papers) ranged from 2 to 5 (the abstracts were not quality assessed).

Four studies demonstrated statistically significant differences in the total NIH-CPSI score in favour of alpha-blockers compared with placebo; one study showed no difference and another did not report a p-value. Only 2 out of 3 studies demonstrated improved quality of life with alpha-blockers. Treatment effects were more often statistically significant when the treatment was administered for 3 months or longer.

Authors’ conclusions
There is insufficient evidence to draw firm conclusions about the effectiveness of alpha-blockers for type III prostatitis.

CRD commentary
The criteria for including studies in the review were well-defined. A number of sources were searched for relevant studies. However, the review was restricted to English language papers and unpublished studies do not appear to have been sought, thereby introducing the potential for language and publication biases. Only one author was involved in selecting relevant studies, thus reviewer bias may also have been introduced. The authors conducted a validity assessment and incorporated the results of it in their analyses. They also discussed several sources of heterogeneity and appropriately summarised the data using a narrative synthesis. Despite weaknesses in the research methodology, overall, the authors’ conclusions seem reliable based on the evidence presented.

Implications of the review for practice and research
Practice: The authors stated that treatment with alpha-blockers for at least 3 months may have a useful role in the treatment of severely symptomatic, treatment naive patients with type III prostatitis who have particularly high scores in the NIH-CPSI urinary domain.

Research: The authors stated that future research should include a large trial of at least 3 months’ duration. They also stated that there should be uniformity in data collection and reporting, with improved health-related quality of life as the end point of therapy.

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Record Status
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.