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INVITED COMMENTARY

Prostate Disease

Bacteria and the prostate: infertility versus symptoms

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Vicari *et al.*[1] present the results of using rifaximn, a nonabsorbable antibiotic, and the probiotic VSL#3 in infertile men with bacteria in the semen and leukocytes in the expressed prostatic secretions (EPS) who were initially cured by antibiotics. Use of this combination reduces the recurrence rate of the infection as well as sonographic evidence of spread to other parts of the reproductive tract. The theoretical basis for simultaneous treatment of the genitourinary and gastrointestinal tract has become more compelling given the evidence of overlapping innervation of the colon and bladder, and influence of inflammation in one organ on the other.[2] These results are very promising and intriguing, but it is very important to keep clear the outcome measures in this study. The outcome parameters were related to the effects on sperm cultures, leukocytes in the EPS and ultrasonographic findings in the seminal vesicles and epididymis. A tender prostate was also considered a positive sign. Symptoms of "prostatitis" as with the National Institutes of Health Chronic Prostatitis Symptom Index were not assessed.

When discussing prostatitis syndromes, one must remember that these are clinical syndromes based on symptoms, primarily pain, and some exclusion criteria, not based on any sonographic findings, or results of culture of semen.[3] Leukocytes in the EPS may be used to distinguish between category IIIA (inflammatory) and IIIB (noninflammatory), but so far there have been no clinical differences found between these two groups. Furthermore, the role of bacteria and inflammation in causing symptoms is unclear, given that men with pelvic pain and those without have equal frequencies of inflammation in EPS and bacteria localized to the prostate.[4] The patients in this study have infertility, which also is not reported as prevalent as men with pelvic pain alone. Therefore, these results must be put into this context. The use of probiotics and rifaximin appears to reduce progression to what the authors define as chronic microbial prostate-vesiculitis or prostate-vesiculo-epididymits. In a population of infertile men, this may well have a benefit to prevent further impairment of sperm quality and preserve fertility. These results do not inform the value of this therapeutic combination on men with pelvic pain, although based on reference,[5] there is the possibility that it could.

COMPETING INTERESTS

The author declares no competing interests.

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