634

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THE ANTI-INFLAMMATORY AND ANTI-MICROBIAL EFFECTS OF THE NOVEL HERBAL FORMULATION (WSY-1075) ON CHRONIC BACTERIAL PROSTATITIS RAT MODEL

Hypothesis / aims of study

The aim of this study was to investigate the anti-inflammatory and anti-microbial effects of a new herbal formula (WSY-1075) in a chronic bacterial prostatitis rat model.

Study design, materials and methods

Thirty two male Wistar rats were used in the study. Experimental chronic bacterial prostatitis was induced by instillation of bacterial suspension (Escherichia coli 108 per ml) into the prostatic urethra. Animals were followed for 4 weeks. After the induction of prostatitis, the rats were randomly divided into one of four treatment groups: control (n=8), ciprofloxacin (n=8), WSY-1075 (400 mg/kg) (n=8), and WSY-1075 (400 mg/kg) + ciprofloxacin (n=8). After 4 weeks of treatment, the prostatic pro-inflammatory cytokine (tumor necrosis factor-α, interleukin [IL]-6, and IL-8) levels, anti-oxidant effects (superoxide dismutase) and histological findings were noted.

Results

The use of ciprofloxacin, WSY-1075, and WSY-1075 with ciprofloxacin showed statistically significant decreases in bacterial growth and improvements in the reduction of prostatic inflammation compared with the control group ($P<0.05$). The WSY-1075 with ciprofloxacin group showed a statistically significant decrease in bacterial growth and improvement in prostatic inflammation compared with the ciprofloxacin group ($P <0.05$).

Interpretation of results

These results suggest that WSY-1075 may have anti-inflammatory and antimicrobial effects, as well as a synergistic effect with ciprofloxacin.

Concluding message

We suggest that the combination of WSY-1075 and ciprofloxacin may be effective in treating chronic bacterial prostatitis to obtain a higher rate of treatment success.

Disclosures

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