

عنوان مقاله:

The role of TSG- β and uroplakin III in bladder pain syndrome/ interstitial cystitis in rats and humans

محل انتشار:

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خلاصه مقاله:

Objective(s): We investigated the relationship between the expression of tumor necrosis factor-inducible gene β (TSG- β) with inflammation and integrity of the bladder epithelium in the bladder tissues of patients with bladder pain syndrome/interstitial cystitis (BPS/IC) and the mechanism of action using a rat model of BPS/IC. Materials and Methods: Expression of TSG- β and uroplakin III was determined by immuno- histochemistry of bladder biopsy samples from control human subjects and patients with verified BPS/IC. Our rat model of BPS/IC was employed to measure the perfusion of bladders with hyaluronidase, and assessment of the effect of TSG- β administration on disease progression. Treatment effects were assessed by measurement of metabolic characteristics, RT-PCR of TGR- β and interleukin- β , bladder histomorphology, and immunohistochemistry of TGR- β and uroplakin III. Results: The bladders of patients with BPS/IC had lower expression of uroplakin III and higher expression of TSG- β than controls. Rats treated with hyaluronidase for ۱ week developed the typical signs and symptoms of BPS/IC, and rats treated with hyaluronidase for ۴ weeks had more serious disease. Administration of TSG- β reversed the effects of hyaluronidase and protected against disease progression. Conclusion: Our results indicate that TSG- β plays an important role in maintaining the integrity of the bladder epithelial barrier.

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