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Presentation Abstract

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Title: Effect of vagal territory stimuli vs. pelvic territory stimuli on urinary bladder function in male rats

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Abstract: Viscero-visceral interaction via the central nervous system is the base for many visceral organ problems such as irritable bowel syndrome and interstitial cystitis; where a pathology affecting one visceral organ can have signs and symptoms manifested in another organ. Urinary bladder, as one of the pelvic viscera, function can be affected by inputs from other visceral organs. In this study, the effect of mechanical stimulation of one of the pelvic nerve territories (distal-colon distention) and mechanical stimulation of one of the vagal nerve territories (distal-esophageal distention), as well as, electrical stimulation of abdominal branches of the vagus nerve on urinary bladder function (cystometry) in male rats were investigated. A nociceptive colon distention has an inhibitory effect on the urinary bladder function either by blocking or decreasing the urinary bladder frequency. However, the electrical stimulation of abdominal vagus nerve and the nociceptive distention of the distal-esophagus increased the urinary bladder function by either increasing the frequency of the urinary bladder cycles or replacing these cycles with successive rapid small contractions. The results of this study can help better understand the effect of viscerovisceral interactions, and so, can be utilized for better management of visceral organs pathologies.

Disclosures: **E.G. Kaddumi**, None.

Keyword(s): BLADDER

VAGUS

VISCERAL

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