Background: The hypothesis derives from the field of female stress incontinence. Application of pressure on the anterior vaginal wall at midurethra with a hemostat restores the geometry of the vesicourethral junction and continence.

Methods: We applied unilateral midurethral pressure during a radiological investigation of a 15 year old patient who had undergone 2 surgeries for ureteric reflux.

Results: On injection of the dye into the bladder, reflux was noted in the left ureter, and this disappeared within 2-3 seconds after pressure was applied on 2 successive occasions in the midurethral area of the vagina.

Conclusion: The hypothesis that a musculoelastic mechanism dependent on a competent pubourethral ligament may play a role in vesicoureteral valvular closure appears to have been confirmed, at least in one case. Hopefully this observation will lead to further studies, and perhaps, new directions for therapy.