

**Referring to the paper:** Liedl B, Inoue H, Sekiguchi Y, et al. Is overactive bladder in the female surgically curable by ligament repair? Cent European J Urol. 2017; 70: 53-59.

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Dear Editor,

I congratulate the authors on a major contribution to Female Pelvic Floor Medicine.

This is a major work which will surely overturn the existing practice of management of OAB 'overactive bladder' with mainly ineffective anticholinergic tablets.

The main purpose of this letter is to explain in greater detail the simultaneous cure of bladder and bowel incontinence reported by the authors.

The mechanisms for closure and opening the urethral and anal tubes are very similar [1]. A forward acting directional vector force acting against the pubourethral ligament (PUL) stretches the distal part of the urethral tube forwards; backward and downward acting vector forces stretch the proximal parts of the urethral and anorectal tubes backwards and downwards to close them much as one kinks a garden hose, urethra around PUL, anorectum against a contracted puborectalis (PRM). The downward vector forces contract against the uterosacral ligaments (USL). During micturition, the forward vector relaxes and the backward vectors open the urethra to exponentially decrease the resistance to urine evacuation [2].

During defecation, the PRM relaxes and the backward vectors open the anorectum to exponentially decrease the resistance to evacuation of feces [2]. The mechanisms are very similar. The same vectors acting oppositely stretch the organs to support bladder & bowel stretch receptors, preventing activation of the micturition and defecation reflexes (urge and fecal incontinence) [2]. Competent USLs are required for all these mechanisms to function properly. If USLs are loose, neither the micturition nor defecation control mechanisms (urge symptoms) can be controlled, nor the mechanisms which mechanically open out bladder and rectum as a prelude to evacuation ('obstructive' symptoms').

A posterior sling as described by the authors restores USL integrity and reverses both obstructive and incontinence symptoms, for both bladder and rectum. The tolerances for the USL tension created during tightening of the TFS tape are very fine. This may explain the varying results reported by the authors and others [3, 4]. An excellent description of TFS technique and its underlying surgical principles are detailed by Gold et al. [5].

## References

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