



# Chronic pelvic pain of unknown origin is potentially curable by uterosacral ligament repair

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## INTRODUCTION

Expert opinion, (one example is the British Journal of Urology), regularly states that chronic pelvic pain (CPP) has no known pathogenesis or cure.<sup>1</sup> Such statements are challenged by data from the posterior fornix syndrome (PFS) paradigm “PFS”, (co-occurring CPP, urge, frequency, nocturia (now “OAB”), abnormal bladder emptying/retention) caused by uterine/apical prolapse (even of minor degree), and cured by native uterosacral ligament (USL) repair<sup>2</sup> (see rectangle, algorithm, Figure 1). Nor is CPP “incurable”. There are copious data of CPP cure by USL laxity, when part of the PFS paradigm (Video 1).<sup>2-13</sup>

Lax USLs as cause of CPP was reported for the first time in the German literature in 1938 by Heinrich Martius,<sup>14</sup> and independently for the first time in the English literature by Peter Petros 60 years later, in 1996.<sup>3</sup> In a laparoscopically controlled trial, Petros reported 70% cure of CPP at 12 months by native tissue USL plication. He also reported relief of CPP in 50% of women with ring pessaries.<sup>3</sup> Petros hypothesized that CPP originated from inability of lax uterosacral ligaments to support visceral nerve plexuses. These fired off afferent impulses which were interpreted by the cortex as pain originating in the end organ, Figure 2.

## DIAGNOSIS

CPP of unknown origin requires co-occurrence of urge or emptying symptoms (see rectangle, diagnostic algorithm, Figure 1). The speculum test, Figure 2, mechanically supports the USLs, and therefore, the visceral plexuses (VP).<sup>15</sup>

Uterosacral ligament causation for CPP is easily tested. The speculum test, when it works, relieves multiple pain sites simultaneously. As such, it is a predictive test for cure of CPP by USL repair.

The definitive test for USL causation of CPP is the Bornstein test, local anesthetic (LA) injected transvaginally into the proximal end of USLs. LA anaesthetizes the VPs, and relieves multiple pain sites simultaneously.

## TREATMENT

“Repair the structure and you will restore the function”- Integral Theory.

Younger women with CPP are potentially curable by USL native tissue plication.<sup>3</sup> Older women have collagen deficiency and require a posterior sling or wide-bore polyester plication of USLs (Video 2).

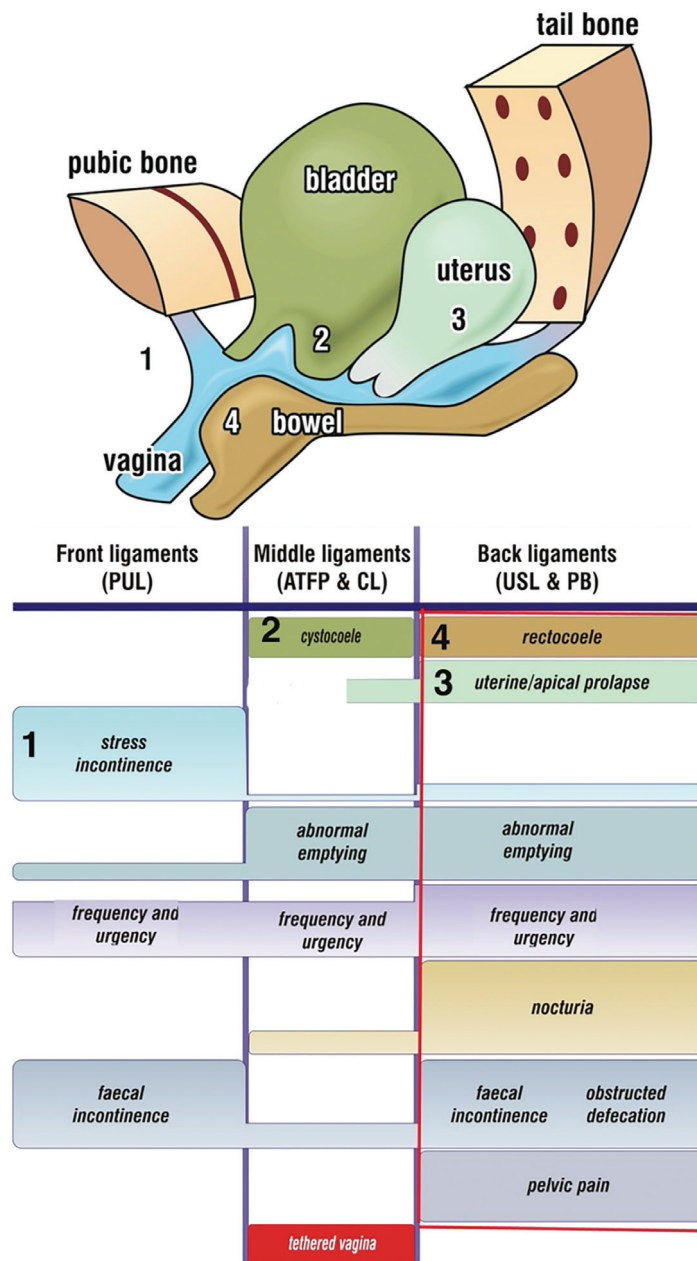
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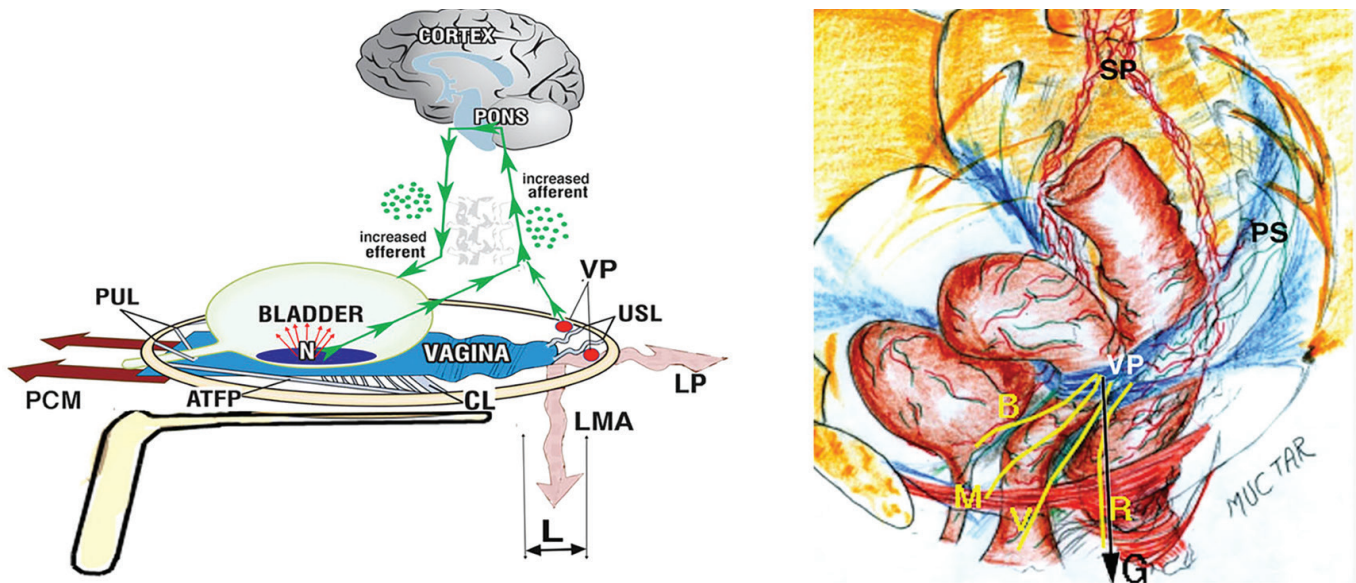
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**Figure 1.** The diagnostic algorithm, causally relates symptoms to organ prolapse and damage in specific ligaments. The symptoms in the rectangle are all caused by collagen deficiency in the uterosacral ligaments



**Figure 2.** Speculum test. **Left figure:** 3D view of the bladder sitting on the anterior vaginal wall. The vagina is suspended from the pelvic brim by ligaments, pubourethral (PUL), cardinal (CL), and uterosacral USL. The wavy form of the arrows signifies weakened muscle forces LP (levator plate) and LMA (conjoint longitudinal muscle of the anus) because their insertion points, USL, are weak or loose “L”.

A speculum inserted into the posterior fornix mechanically supports lax USLs, the visceral nerve plexuses (VP) S2-4, T11-L2 and also, the stretch receptors “N”, to decrease afferent impulses to the micturition centre of the brain, which are interpreted as urgency from “N” and pain from “VP”. **Right figure:** Visceral plexus (VP) with components “SP” (sympathetic T11–L2) and parasympathetic “PS” (S2–4). Endorgan afferent visceral nerves M (muscles), B (bladder), V (vagina), R (rectum) travel to VP where they group (explaining co-occurrence of endorgan site pain); VP serves as a type of relay junction. G signifies forces of gravity acting on these nerves in the upright position. If they are unsupported by competent USLs, the VPs can directly fire off signals to the brain which are interpreted as pain arising from the end organs such as M, V, R and lower abdomen. Right figure by permission, Muctar S.

**Video 1:** <https://youtu.be/g3SXKzD4it8?si=mSg9P1ju3qdIv3m0>

**Video 2:** <https://youtu.be/pEa61sWHkaQ?si=oJ7tZIFwNi2Ff1-L>

**Keywords:** Chronic pelvic pain; uterosacral ligament causation speculum test; surgical cure

## FOOTNOTES

## DISCLOSURES

**Conflict of Interest:** The author of this article (P.P.) is a member of the Editorial Board of this journal. He was completely blinded to the peer review process of the article.

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