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*Re: Vulvar vestibulitis may be a referred pain arising from laxity in the uterosacral ligaments: A hypothesis based on three prospective case reports*

Vulvodynia is a major problem in up to 9% of females.<sup>1</sup> Our hypothesis, that vulvodynia may possibly be a referred pain

caused by laxity in the uterosacral ligaments (USL), had its origins in a visit to Perth Australia by Jacob Bornstein.

During discussions, we felt it reasonable to link vulvodynia with another debilitating, more deep-seated type of pelvic pain<sup>2</sup> attributed to lax USL. The pudendal nerves originate from S2–4. However, the nerve distribution in the lower abdomen is from the ilioinguinal nerve (L1–2). Therefore, it was presumed that this deep pelvic pain was a referred pain and it was this that gave rise to our hypothesis that vulvodynia, too, may possibly be caused by laxity in the USL. Like vulvodynia, this deep pelvic pain also appeared to have a physical<sup>2</sup> rather than psychological origin. This pain is characterised by low dragging abdominal pain, usually right-sided, deep dyspareunia and, often, low sacral back-ache. It is often relieved on lying down and exists as part of a syndrome, namely 'posterior fornix syndrome', which also includes urge, frequency, nocturia and abnormal bladder emptying.<sup>4</sup> All these symptoms were improved in 60–70% of patients following electrotherapy and specific pelvic floor exercises, which included squatting.<sup>2</sup>

We believe these non-surgical methods worked by strengthening the pelvic muscles and their ligamentous (USL) insertions. In patients with significant uterine or vault prolapse, 80% of 'posterior fornix syndrome' symptoms were cured by the posterior intravaginal slingplasty operation (PVS), a day care surgical approach<sup>3</sup> that precisely positions a plastic tape to create artificial uterosacral neo-ligaments. Symptom improvement using both methods<sup>2,5</sup> has been attributed to the additional physical support provided to the unmyelinated nerve fibres carried along the uterosacral ligaments; this explains pain relief on lying down.

Together, we prospectively assessed three patients aged 45, 45 and 47 years, and parity 3–4, with vulvodynia. All reported great difficulty having sexual intercourse and had undergone either Fenton's operation or vaginal stretching. Extreme sensitivity was demonstrated to the Q-tip test in all patients. The patients were assessed for other symptoms with a structured self-administered questionnaire. On examination, a first- or second-degree vault prolapse was noted in all patients. All patients underwent the posterior IVS operation.<sup>5</sup> Patients were assessed with the questionnaire and Q-tip test at a minimum time of 3 months postoperatively. All patients reported recommencement of normal sexual intercourse and showed no sensitivity to the Q-tip test. The results for the other symptoms are summarised in Table 1. We have since each observed cure of vulvodynia pain in two further patients, one in Israel and one in Australia.

The symptom complex shown Table 1 was described in 1993 as the 'posterior fornix syndrome'.<sup>4</sup> This syndrome comprises symptoms of nocturia, frequency, urgency, pelvic pain and bladder emptying difficulties. It is emphasised that not all symptoms occur simultaneously. Each may occur independently of the other. In this context, vulvodynia could be added as one more manifestation of this syndrome. Although only a few patients have been assessed prospectively to date, the minimal nature of the surgery gives some hope to the many sufferers of this problem. More studies are needed to confirm this report.

**Table 1** Outcome of posterior intravaginal slingplasty

Patient no.	Test occasion	Entry dyspareunia	Symptoms change with treatment				Pelvic pain	Emptying difficulties
			Nocturia/night	Frequency/day	Urge incontinence/day			
1	Pre-operatively	Yes	5	10	5	Yes	Yes	
	Postoperatively	No	3	8	0	Cured	Improved	
2	Pre-operatively	Yes	8	> 20	3-5	Yes	Yes	
	Postoperatively	No	3	5	0	Cured	Cured	
3	Pre-operatively	Yes	5	12	1-2	Yes	Yes	
	Postoperatively	No	0	6	0	Cured	Cured	

Peter PETROS  
*University of Western Australia, and Royal Perth Hospital, South  
Perth, Australia*

Jacob BORNSTEIN  
*Hatechin University,  
Department of Gynecology and Obstetrics, Western Galilee  
Hospital, Nahariya, Israel*

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