

STANDARDIZATION OF PELVIC ORGAN PROLAPSE: A COMPARISON OF CLINICAL EXAMINATION WITH A NOVEL STANDARDIZED MEASUREMENT

Hypothesis / aims of study

In women, urge urinary incontinence (UII) is mostly stronger during the day than during the night. Quadrupeds never experience UI, indicating that UII is dependent on the upright body position. Several researchers have assumed that the main cause for UII is the decreased function of the bladder holding apparatus. This apparatus is composed of the pubocervical fascia (PCF) as part of the endopelvic fascia between the bladder and anterior vaginal wall. The uterosacral ligaments (USLs), pubourethral ligaments (PULs), and the lateral arcus tendineus fascia pelvis are suspended from the PCF¹.

We measured the dysfunction of these ligaments not in terms of symptoms but in metric parameters. The pelvic organ prolapse quantification (POP-Q) system roughly describes the dysfunction, but in the sitting position with an empty bladder. In this position, women are typically not incontinent. According to our observations, only the USL can be reliably measured from the descensus (prolapse) of the apical end of the vagina or cervix. Therefore, we measured the tension in the USL and compared the extended length between patients with and without UI.

Study design, materials and methods

All patients provided informed consent and were examined under general anesthesia. The surgeon placed a hooked clamp at the cervix (C) or vaginal scar at the end of the vagina (D). He then pulled the clamp with a force of 10 N and measured the distance between the C or D points and the remainder of the hymenal ring.

The surgeon or examiner was blinded to the continence or incontinence status of the patients.

To determine incontinence, preoperative interviews were conducted by a doctor or study nurse by using standardized questionnaires.

Results

Clinical examination					10N-examination				
		continent	incontinent	total			continent	incontinent	total
0	n	55	17	72	0	n	32	0	32
	%	92%	16%	44%		%	53%	0%	20%
1a	n	5	54	59	1a	n	28	10	38
	%	8%	52%	36%		%	47%	10%	23%
1b	n	0	22	22	1b	n	0	59	59
	%	0%	21%	13%		%	0%	57%	36%
2	n	0	8	8	2	n	0	29	29
	%	0%	8%	5%		%	0%	33%	18%
3, 4	n	0	3	3	3, 4	n	0	6	6
	%	0%	3%	2%		%	0%	6%	4%
total	n	60	104	164	total	n	60	104	164
	%	100%	100%	100%		%	100%	100%	100%

The distribution of the points C and D according to the POP-Q system after traction with 10 N was as follows.

Interpretation of results

All patients with UII had a prolapse at point C or D under slight tension. After pulling at the structures with a power of 10 N (1 kg), both points could be pulled down to -4 cm and less, which we defined as stage Ib. All 60 continent patients had POP-Q stage 0 or Ia. Therefore, we conclude that UII is associated with a defective USL.

References

1. DeLancey JO: The anatomy of the pelvic floor. Current opinion in obstetrics & gynecology 1994; 6: 313-6

Disclosures

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Helsinki: Yes **Informed Consent:** Yes