

Ejaculation féminine ou incontinence coïtale?

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Les questions

- Existe t'il une sécrétion spécifique lors de l'orgasme féminin ?
- Rôle de cette sécrétion ?
- Origine de cette sécrétion ?

Existe t'il une sécrétion spécifique lors de l'orgasme féminin ?

- 1966 Masters et Johnson: 10.000 Orgasmes 694 sujets adolescence à 70 ans chez la femme: pas éjaculation féminine .
- 1988 et 1992 : une poignée de femmes.

non

Masters WH, Johnson V. Human Sexual Response.: Little, Brown and Company Boston (1966).

Masters W, Johnson V, Kolodny R. Human Sexuality (Vol. third edition).: Scott, Foresman Glenview, Illinois (1988).

Masters W, Johnson V, Kolodny R. Human sexuality (Fourth Edition ed.).: Harper Collins NewYork (1992).

Existe t'il une sécrétion spécifique lors de l'orgasme féminin ?

« An anonymous questionnaire was distributed to 2350 professional women in the United States and Canada with a subsequent 55% return rate. Of these respondents, 40% reported having a fluid release (ejaculation) at the moment of orgasm. Further, 82% of the women who reported the sensitive area (Grafenberg spot) also reported ejaculation with their orgasms. A number of variables were associated with this perceived existence of female ejaculation. »

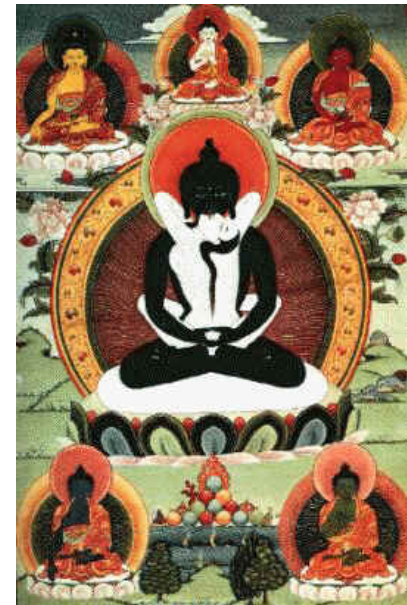
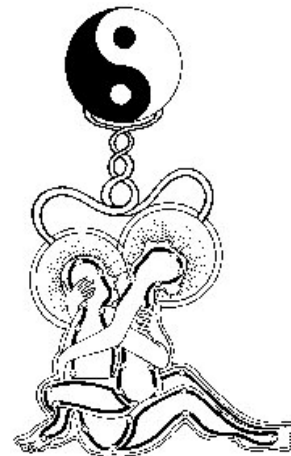
Darling CA, Davidson JK, Conway-Welch C: Female ejaculation : perceived origins, the Grafenberg spot/area, and sexual responsiveness. Arch of sex behavior. 1990; 19 (1): 29-47.

oui

Rôle de cette sécrétion ?

L'Asie

- Tao, tantra, kamasutra
- Kanda, la perle noire
- Sexualité plaisir partagé essentiellement



Rôle de cette sécrétion ?

Her breasts were compressed in close embracement, frisson of excitement apprehended her torso, smooth love juice overflowed abundantly the garment, right there where her girdle was located;

“Don’t!, don’t!, wrecker of my pride, back off, this is enough for me”

so she moaned, to obtain mercy. Did she sleep, did she die then?

Sink into my heart

[“Amarushataka”, stave 35]

Rôle de cette sécrétion ?

L'occident

Aristote

(Aristotle. On the generation of animals. Whitefish, MT: Kessinger Publishing; 2004.

Cresswell G. Aristotle. History of animals. In ten Books. Oxford, London: St. Johns College; York Street, Covent Garden: George Bell & Sons; 1879.)

Éjaculation féminine reproduction

Galien: plaisir dans la conception pour l'homme et la femme

Origine de cette sécrétion ?

Etudes Wimpissinger

Introduction. Many speculations have been made on the possible existence of a “female prostate gland” and “female ejaculation.” Despite several reports on the subject, controversy still exists around the “female prostate” and whether such a gland might be the source of fluid emitted during orgasm (ejaculation).

Aim. To investigate the ultrasonographic, biochemical, and endoscopic features in two women who reported actual ejaculations during orgasm.

Main Outcome Measures. Perineal ultrasound studies, as well as biochemical characteristics of ejaculate and urethroscopy, have been performed in two women.

Methods. Two premenopausal women—44 and 45 years of age—who actually reported fluid expulsion (ejaculation) during orgasm have been investigated. Ultrasound imaging, biochemical studies of the ejaculated fluid, and endoscopy of the urethra have been used to identify a prostate in the female. Ejaculated fluid parameters have been compared to voided urine samples.

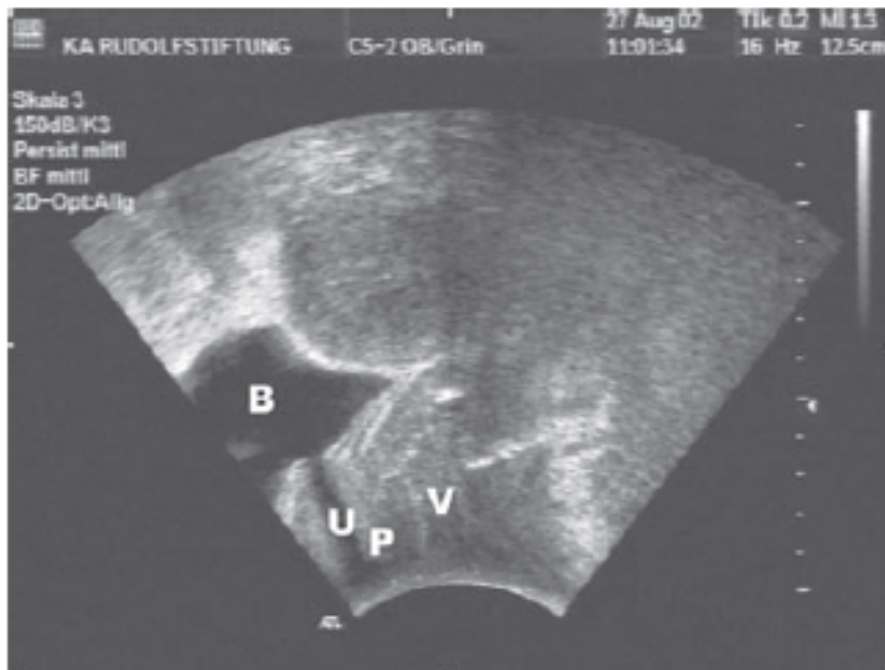
Results. On high-definition perineal ultrasound images, a structure was identified consistent with the gland tissue surrounding the entire length of the female urethra. On urethroscopy, one midline opening (duct) was seen just inside the external meatus in the six-o’clock position. Biochemically, the fluid emitted during orgasm showed all the parameters found in prostate plasma in contrast to the values measured in voided urine.

Conclusions. Data of the two women presented further underline the concept of the female prostate both as an organ itself and as the source of female ejaculation. **Wimpissinger F, Stifter K, Grin W, and Stackl W. The female prostate revisited: Perineal ultrasound and biochemical studies of female ejaculate. J Sex Med 2007;4:1388–1393.**

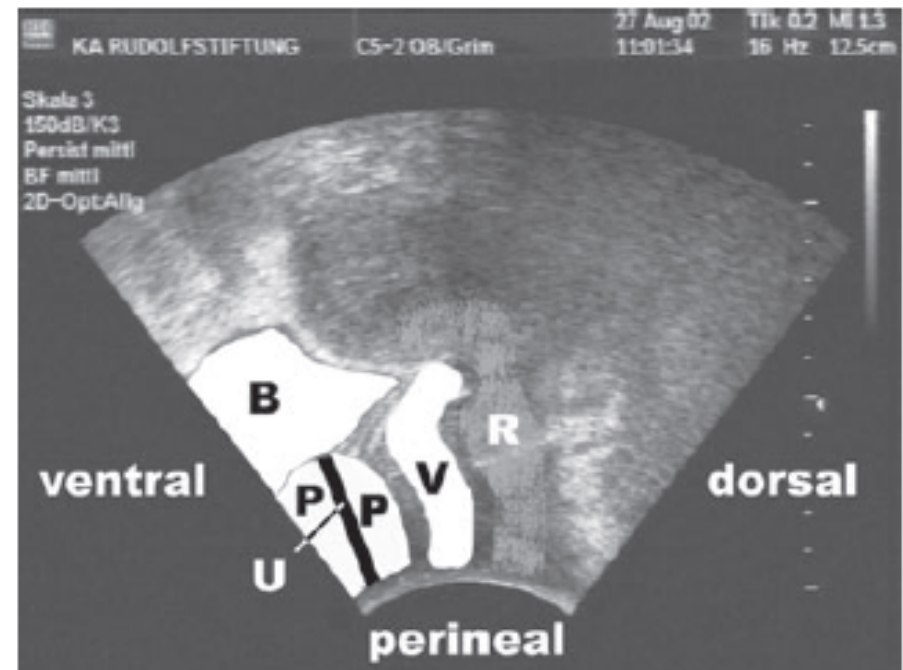
Table 1 Comparison of different biochemical parameters in female ejaculate and voided urine compared to male ejaculate

	W1: female ejaculate	W1: voided urine	W2: female ejaculate	W2: voided urine	Male ejaculate
PSA (ng/mL)	213.49	0.80	105.00	0.16	110–2,211 [27]
PAP (U/L)	329	42	—	<1	—
PSAP (U/L)	271	37	860.0	178	—
Glucose (mg/dL)	127	30	100	31	0.4–29.5 [28]
Creatinine (mg/dL)	33.0	178.0	30.0	225.0	—
BUN		1,474	—	363	—
K (mMol/L)	8.6	37.3	—	31	5.0–24.8 [28]
Na (mMol/L)	46	203	—	129	23.6–51.2 [28]
Cl (mMol/L)	37	148	—	144	43

W1 = woman 1; W2 = woman 2; PSA = prostate specific antigen; PAP = prostatic acidic phosphatase; PSAP = prostate specific acid phosphatase; BUN = blood urea nitrogen; K = potassium; Na = sodium; Cl = chloride; — = no parameters available.



a



b

Figure 1 Perineal ultrasound of the female prostate. (a) median aspect (b) sagittal aspect. B = bladder; U = urethra; P = prostate; V = vagina.



Figure 2 Huffman's wax model, longitudinal aspect.

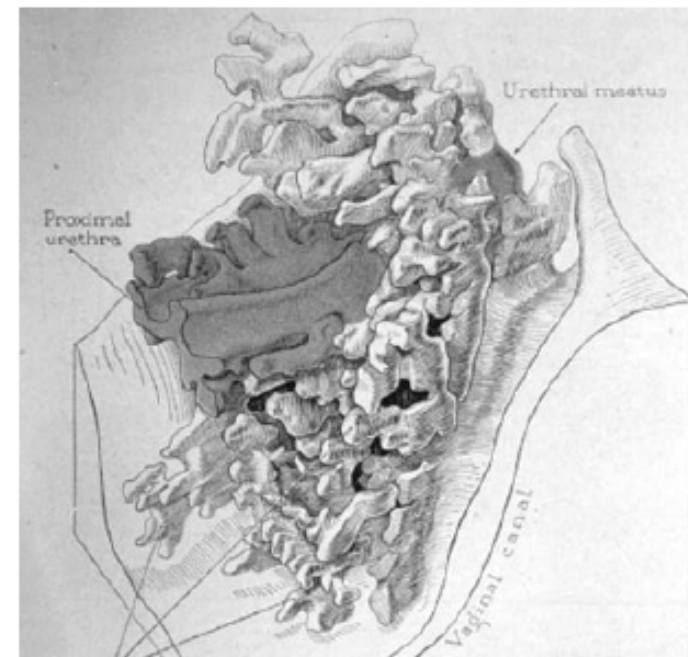


Figure 3 Huffman's wax model, anterior aspect.

Introduction. The female prostate (paraurethral glands) is a well-known, yet poorly understood, anatomic structure. Imaging studies of the female prostate, its physiology, and pathologies are still highly controversial.

Aim. To study the anatomy of the female prostate with contemporary magnetic resonance imaging (MRI) techniques and correlate these findings to clinical features.

Main Outcome Measures. Female prostate pathologic anatomy on MRI.

Methods. Women with clinical signs of function (or dysfunction) of paraurethral glands have been examined with 1.5 or 3 Tesla MRI and urethroscopy.

Results. Seven women aged 17 to 62 years (median 40 years) have been prospectively included into the study. Clinically, one of the seven women reported ejaculation at orgasm, whereas three women presented with occasional secretions independent of sexual stimulation. In two women, paraurethral glands have been randomly found on MRI that has been performed in the diagnostic workup of other diseases. One woman presented with swelling of the external urethral meatus at puberty. In this woman, a paraurethral gland has been found, besides the erectile tissue at the external meatus. Two women reported lower urinary tract symptoms (LUTS) with mainly urethral symptoms (recurrent infections in one and paraurethral stones in the other). On MRI, paraurethral glands could be visualized in six of the seven patients. There was no relation between glandular volume and ejaculation status. In cases where glands or related pathologies could be found on physical examination, there was a clear correlation with MRI anatomy.

Conclusions. MRI has the potential to become the standard imaging modality for female prostate pathology. Exact visualization of this highly variable structure is possible by tailored MRI protocols. This tool can aid in understanding an individual woman's symptoms related to paraurethral glands with an impact on her sexual life. **Wimpissinger F, Tscherny R, and Stackl W. Magnetic resonance imaging of female prostate pathology. J Sex Med 2009;6:1704–1711.**

Table 1 Patient characteristics and clinical features

No.	Age	Symptoms	Ejaculation	Physical examination	Endoscopy	PSA of mucous
1	62	LUTS, paraurethral stones	No	Gland w/stone palpable	endoscopy of duct of paraurethral gland	na
2	21	Mucous secretion on palpation	No	Gland/cyst palpable	no ducts visible	0.0 ng/mL
3	56	LUTS, recurrent infections, mucous secretion on palpation	Occasionally	Gland/cyst palpable	no ducts visible	1.5 ng/mL
4	26	Spontaneous mucous secretion	Occasionally	No gland palpable	no ducts visible	0.01 ng/mL
5	17	Swelling of external urethral meatus	No	No gland palpable	no ducts visible	20.2 ng/mL
6	41	Crohn's disease, fistula	No	No gland palpable	no ducts visible	0.01 ng/mL
7	58	Ejaculation	At clitoral orgasm	No gland palpable	ducts ventrally at external urethral meatus	na

Table 3 MRI anatomy (anatomic type according to Table 2, M. Zaviacic)

Patient no.	Anatomic type	MRI morphology	Gland volume
1	1	Gland on right side of distal urethra	2 cc
2	5	Gland on left anterior side of middle part of urethra	3 cc
3	1	Gland on left side of distal urethra	2 cc
4	1	Gland retropubic with duct entering distal urethra ventrally	4 cc
5	2	Gland dorsal to proximal urethra (bladder neck)	2 cc
6	3	Gland surrounding urethra in spiral fashion	4 cc
7	4	Gland not visible on MRI	NA

Table 2 Anatomic types of female prostate (adapted from M. Zaviacic 1998 [4])

1	Anterior type (external urethral meatus)
2	Proximal type (bladder neck)
3	Glands along the hole length of urethra
4	Rudimentary
5	Gland in the middle of urethra
6	Dumbbell type

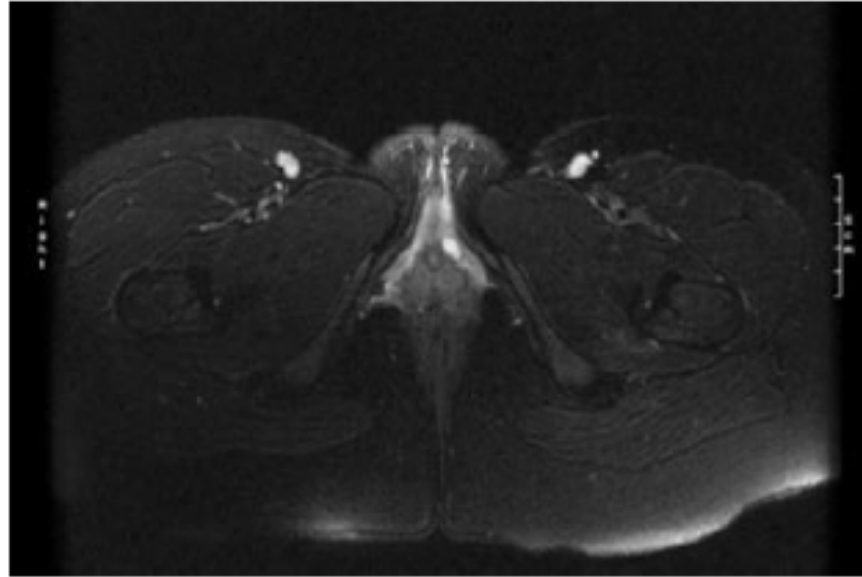


Figure 3 Axial section MRI of patient no. 2 with the oval glandular tissue at the left side of the middle urethra (anterior) [60].

Introduction. Although there are historical records showing its existence for over 2,000 years, the so-called female ejaculation is still a controversial phenomenon. A shared paradigm has been created that includes any fluid expulsion during sexual activities with the name of “female ejaculation.”

Aim. To demonstrate that the “real” female ejaculation and the “squirting or gushing” are two different phenomena.

Methods. Biochemical studies on female fluids expelled during orgasm.

Results. In this case report, we provided new biochemical evidences demonstrating that the clear and abundant fluid that is ejected in gushes (squirting) is different from the real female ejaculation. While the first has the features of diluted urines (density: $1,001.67 \pm 2.89$; urea: 417.0 ± 42.88 mg/dL; creatinine: 21.37 ± 4.16 mg/dL; uric acid: 10.37 ± 1.48 mg/dL), the second is biochemically comparable to some components of male semen (prostate-specific antigen: $3.99 \pm 0.60 \times 10^3$ ng/mL).

Conclusions. Female ejaculation and squirting/gushing are two different phenomena. The organs and the mechanisms that produce them are bona fide different. The real female ejaculation is the release of a very scanty, thick, and whitish fluid from the female prostate, while the squirting is the expulsion of a diluted fluid from the urinary bladder. Rubio-Casillas A and Jannini EA. New insights from one case of female ejaculation. *J Sex Med* *****,**_**.**

Table 1 Comparison of different biochemical parameters in the voided urine, squirting fluid, and female ejaculate

	Voided urine	Squirting	Ejaculate
PSA (ng/mL)	0.90 ± 0.03	$0.23 \pm 0.25^*$	$3.99 \pm 0.60 \times 10^{3**}$
Uric acid (mg/dL)	41.66 ± 3.52	$10.37 \pm 1.48^*$	—
Urea (mg/dL)	923.67 ± 82.10	$417.0 \pm 42.88^*$	—
Creatinine (mg/dL)	72.67 ± 4.04	$21.37 \pm 4.16^*$	—
Color	Yellow	Clear	White
Density	$1,028.33 \pm 2.89$	$1,001.67 \pm 2.89^*$	—
Volume (mL)	84.00 ± 8.54	120.67 ± 56.36	$0.89 \pm 0.52^{*,**}$

* $P < 0.05$ vs. voided urine; ** $P < 0.05$ vs. squirting.

PSA = prostate-specific antigen.

N = 3 for each determination.

Mais.....

- Chez l'homme la quantité de PSA sécrétée par la prostate est de 0,3ng/ml/gr de prostate. Le dosage sanguin et dans le sperme du PSA. Donc dans la publication de Jannini la « prostate » aurait un poids de 10-15 gr....
- Dans la publication de Wimpissinger, les « prostate » n'excèdent pas 4cc.
- Les taux de PSA varient de 1 à 10 entre les patients

Mais.....

each experiment. During the experiments, the volunteer was in the Trendelenburg position. Sterile gloves were used to avoid bacterial contamination. A digital stimulation of the anterior vaginal wall was performed. Then, when she was properly excited, the vaginal lubricant was collected using a vaginal swab. To avoid contact with the labia minora, a sterile vaginal speculum was used. Once the sample was taken, stimulation continued until the subject reached the orgasm and urethral expulsions were separately collected. A large plastic receptacle to collect the first urethral fluid (squirting) was used. Although the ideal device to collect this fluid is a Foley catheter, the tube could compress the urethral orifice and prevent the release of the female ejaculate. The other urethral fluid (female ejaculate) was collected with a sterile tong depressor. The total volume of each fluid was measured. Furthermore, uric acid, urea, creatinine, and PSA concentrations have been determined. Specimens have been microscopically examined with an optical microscope (Carl Zeiss Optical, Inc., Chester, VA, USA).

Un recueil peu physiologique.....

Mais.....

Le PSA existe dans les seins, l'utérus, le placenta....

Prostate-specific antigen synthesis and secretion by human placenta: a physiological kallikrein source during pregnancy. Malatesta M, Mannello F, Luchetti F, Marcheggiani F, Condemi L, Papa S, Gazzanelli G. J Clin Endocrinol Metab. 2000 Jan 85(1):317-21.

Prostate-specific antigen (PSA), a kallikrein-like serine protease until recently thought to be prostate specific, has been demonstrated in various nonprostatic tissues and body fluids. PSA has been also found in human endometrium and amniotic fluids, even if the significance of this novel expression is unclear. In this study, we have demonstrated by multiple techniques that human placental tissue, obtained at delivery from normal full-term pregnancies, synthesizes and secretes PSA. RT-PCR showed the presence of PSA messenger ribonucleic acid; biochemical, chromatographic, and immunological studies revealed the expression of both free and complexed PSA forms; immunoelectron microscopy indicated the syncytiotrophoblast as the site of PSA synthesis and secretion. Moreover, in vitro experiments demonstrated that PSA production and secretion are up-regulated by 17beta-estradiol, a pregnancy-related steroid hormone. These results suggest that human placenta is a source of the PSA present in amniotic fluid and maternal serum during pregnancy.

Mais.....

[Prostate specific antigen--PSA and histopathological findings of endometrium in women with fibrocystic breast disease]. Radowicki S, Kunicki M. Ginekol Pol. 2010 Feb;81(2):111-4.

OBJECTIVE: The aim of the study was to evaluate the relationship between serum free and total PSA and histopathological findings in women with Fibrocystic mastopathy.

MATERIAL AND METHODS: 176 women with fibrocystic breast disease, aged 18 to 45 years.--Group I: comprised 114 patients with cysts < 10 mm in diameter--group II: comprised 62 women with cysts > 10 mm in diameter. The control group consisted of 46 healthy women aged 18 - 45 years who had no breast pathology Total PSA (PSA-T) and free PSA (PSA-Free) were measured by an ultra-sensitive fluoroimmunometric DELFIA assay (Prostatus PSA Free/Total Wallac, Turku, Finland). The detection limit for PSA was 0.01 ng/ml. Endometrial samples have been obtained with Pipelle probe between 22 and 24 days of the menstrual cycle.

RESULTS: In the control group secretory endometrium was more frequently detected than in the mastopathy group ($\chi^2 = 11,15$, $p = 0.01$). Proliferatory ($\chi^2 = 8.27$, $p = 0.004$) and presecretory endometrium ($\chi^2 = 4.61$, $p = 0.03$) were more frequently detected in the mastopathy group than in controls. We did not find statistically significant relationship between the mean PSA concentrations between the groups in relation to histopathological findings.

CONCLUSIONS: No relationships between free and total PSA measured in the follicular phase of the menstrual cycle and endometrial findings were detected in our study. Further research is required to evaluate the relationship between PSA and endometrial findings.

Ne pas oublier....

Sex Transm Dis. 2009 Aug;36(8):501-6. Good performance of rapid prostate-specific antigen test for detection of semen exposure in women: implications for qualitative research. Hobbs MM, Steiner MJ, Rich KD, Gallo MF, Alam A, Rahman M, Menezes P, Chipato T, Warner L, Macaluso M.

- **Et l'incontinence coitale ?**

Introduction. Coital urinary incontinence is a frequently underreported symptom, with a relevant impact on women's sexuality and quality of life.

Aim. This article will review the available evidence on incidence, pathophysiology, and treatment of coital urinary incontinence with the attempt to present the current state of the art.

Methods. PubMed was searched for reports about coital urinary incontinence that were published from 1970 to 2008, and the most relevant articles were reviewed.

Main Outcome Measures. Review on epidemiology, pathophysiology, diagnosis, and treatment of coital incontinence.

Results. The incidence of coital incontinence in incontinent women has been reported to range between 10% and 27%. At present, some evidence suggests an association between urinary leakage at penetration and urodynamic stress (USI) incontinence as well as urinary leakage during orgasm and detrusor overactivity (DO). When treatment for these conditions are based upon urodynamic findings, pelvic floor muscle training, surgery, and pharmacotherapy show satisfactory cure rates.

Conclusions. Coital urinary incontinence deserves much more attention in clinical practice: women should be specifically interviewed for this disturbance because it has a very negative impact on their sexuality. If a reliable urodynamic diagnosis is made, coital urinary incontinence at penetration can be cured in more than 80% of cases by surgery in the presence of USI. The form of coital incontinence during orgasm is curable by antimuscarinic treatment in about 60% of cases when associated with DO. **Serati M, Salvatore S, Uccella S, Nappi RE, and Bolis P. Female urinary incontinence during intercourse: A review on an understudied problem for women's sexuality. J Sex Med 2009;6:40-48.**

Table 1 Correlation between the different timings of coital incontinence and the prevalent urodynamic diagnosis

Study	Type of study	No. of patients	Coital incontinence at penetration	Coital incontinence during orgasm
Hilton [19]	Prospective	79	USI	DO
Khan et al. [27]	Prospective	3		DO
Vierhout and Gianotten [28]	?	57	All urodynamic diagnoses	All urodynamic diagnoses
Moran et al. [20]	Retrospective	228	USI	USI
Serati et al. [29]	Prospective	132	USI	DO

USI = urodynamic stress incontinence; DO = detrusor overactivity.

Table 2 Data about the prevalence of (DO) in women affected by the different forms of coital urinary incontinence

Author	DO in women with incontinence during orgasm	DO in women with coital incontinence not during orgasm	<i>P</i>	OR (95% CI)
Hilton [19]	9/26 (35%)	2/53 (4%)	0.0005	13.5 (2.65–68.76)
Vierhout and Gianotten [28]	10/42 (23.8%)	2/15 (13.3%)	0.49	2.03 (0.39–10.57)
Moran et al. [20]	15/70 (21.4%)	30/158 (19%)	0.72	1.16 (0.58–2.33)
Serati et al. [29]	34/49 (69.4%)	24/83 (28.9%)	<0.0001	5.57 (2.58–12.05)

DO = detrusor overactivity; OR = odds ratio; CI = confidence interval.



Coital Incontinence: Relation to Detrusor Overactivity and Stress Incontinence

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Aims: The aim was to assess functional (demographic, clinical, and urodynamic) and anatomical (described by MRI) abnormalities associated with coital incontinence (CI). **Methods:** All consecutive sexually active women with urinary incontinence (UI) were invited. Women were asked if they experience urine leakage during sex; and its timing: during penetration (CIAP) versus during orgasm (CIAO). All women were studied with urodynamics. Pelvic MRI was done for selected group of women. MRI examination was done using 1.5 T superconducting magnet, supine, and during two phases: static and dynamic, using multiplanar T2-weighted turbo spin-echo and single short T2-weighted images. **Results:** Ninety women with UI; 60 had CI while 30 had no CI. Prevalence of CI was significantly higher among women with stress incontinence (SUI) (89.4%) compared to those with detrusor overactivity (DOA) (33.3%); $P = 0.000$. Factors significantly associated with CI were parity, prolapse, and SUI. Among studied MRI variables, no factor was significantly associated with CI. CI showed significant positive correlation with severity of SUI ($r = 0.327, P = 0.05$) and significant negative correlation with Abdominal leak point pressure ($r = -0.362, P = 0.01$). Amplitude of unstable detrusor contraction as measured by urodynamics did not correlate with severity of CI. **Conclusions:** CI seems to be in the spectrum of SUI and POP. CI is almost invariably a symptom of SUI with urethral sphincter incompetence, even when it occurs during orgasm. Many women with DOA leak during sex; however, the potential role of associated urethral incompetence should be considered. *Neurourol. Urodynam.* 30:520–524, 2011. © 2011 Wiley-Liss, Inc.

ABSTRACT

Introduction. Questionnaire surveys suggest that 40–54% of women have experienced an expulsion of fluid at orgasm. Some of these women have coital incontinence, whereas others identify the fluid passed as female ejaculate.

Aim. To assess whether women who have experienced female ejaculation have detrusor overactivity or the bothersome lower urinary tract symptoms associated with coital incontinence.

Methods. We recruited six women who self-identified as having experienced female ejaculation and six controls who had not. Each woman completed a 3-day bladder diary and two validated bladder questionnaires: the Urgency Perception Scale (UPS) and the Incontinence Impact Questionnaire (IIQ). Each woman underwent short provocative ambulatory urodynamics, a modified form of urodynamics, with a high sensitivity for detrusor overactivity.

Main Outcome Measures. Prevalence of detrusor overactivity, 24-hour urinary frequency, IIQ and UPS scores.

Results. No woman in either group had detrusor overactivity. The bladder diaries and questionnaire results were within the normal range for all women.

Conclusion. Women who experience female ejaculation may have normal voiding patterns, no bothersome incontinence symptoms, and no demonstrable detrusor overactivity. Women who report female ejaculation, in the absence of other lower urinary tract symptoms, do not require further investigation, and may be reassured that it is an uncommon, but physiological, phenomenon. **Cartwright R, Elvy S, and Cardozo L. Do women with female ejaculation have detrusor overactivity? J Sex Med 2007;4:1655–1658.**

Conclusion

- Concept « androcentré »
- Éjaculation féminine possible, glandes para-urétrales, ultrafiltrat de l'urine? PSA?
- L'incontinence coitale est un « vrai » combat, et sa prise en charge, le plus souvent possible et efficace est susceptible d'améliorer la QDV de la patiente