

FEMALE EJACULATION, MYTH AND REALITY

Female Ejaculation, Myth And Reality

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Female ejaculation, PSA, Skene's ducts, female prostate.

ABSTRACT

In our sexual therapy practice, out of a sample of 220 women, we have found three (1.36) whose demand was related to the emission of liquid, through the genitals, during orgasm. This took us to question ourselves about one of the main controversies surrounding the orgasmic response of women, that is, the existence or not of "female ejaculation". Investigations about this issue have been polarized around two clearly differentiated lines. On one hand, we have all those who state that any fluid emitted during orgasm is nothing else than a certain degree of urinary incontinence (Kinsey, 1953; Masters & Johnson, 1988; Bohlen, 1982; Kaplan, 1983; Golberg et al. 1983, Alzate, 1985, etc.). On the other, we have all those authors that try to prove that women emit certain fluid, that differs from vaginal lubrication, during their sexual response (Grafenberg, 1950; Sevely & Bennet, 1978; Belzer et al., 1981; Perry & Whipple, 1981; Addiego et al., 1981; Sensabaugh & Kahane, 1982; Belzer et al., 1984; Zaviavic et al., 1984; Stifter, 1987; etc.). Thanks to this last group, the presence, in the supposed female ejaculation, of specific prostate acid phosphatase and fructose, elements normally present in male ejaculation, seems proven.

Anyhow, the investigators that support the existence of female ejaculation, seem to agree that it is a possibility that actually occurs in very few women: 10% for Whipple and Perry (1981), 14 % for Bullough et al. (1984), 40% for Darling, Davidson and Conway Welch (1990) and a 6% for Kratochvil (1994).

We believe that most women ejaculate, although they are variations in the quantity of the emitted liquid and/or the direction of the emission. We think it is quite possible that the fact that many women do not perceive an ejaculation, during the orgasm, is caused by the product of their "female prostate" being very scarce or because the ejection takes the retrograde direction towards the bladder, as occurs in the retrograde ejaculation of some men. To try and test this hypothesis, we have analyzed, in the pre and postorgasmic urine, the presence of prostate specific antigen (PSA) in order to find any difference due to the substances elaborated in the urethral and paraurethral glands and in Skene's ducts. All this is what is known as the "female prostate". After doing a Microparticle Enzyme Immunoassay (MEIA) to detect PSA, we observed that 75% of our sample presents PSA levels in postorgasmic urine that is not detectable in preorgasmic urine. The difference in PSA concentration between pre and post urine was tested for the whole set of data by two-tailed Wilcoxon's pairs signet-ranks test. The differences found were significant ($p= 0.0002$).

With the obtained data, we confirm our hypothesis and intend to confirm the previous works about female ejaculation, calm those women that fear that they have urinated while experiencing orgasm and, finally, break the growing myth of the "ejaculating superfemale" because we state that all, or at least most, women ejaculate.

INTRODUCTION

Female ejaculation is not a novel issue. Hipocrates had already talked about “female semen”. Later, it was Galeno, going against the theories of Aristotle, who defended the existence of a female seminal liquid. De Graaf (1672), claimed the existence of a female “prostate” or “corpus glandulosum” that, according to him, secreted a fluid that made women more libidinous (pp. 103-104). However, in recent times, the strongest bet was placed by Grafenberg (1950) claiming the existence of an area, the G point, in the anterior wall of vagina, that stimulated provoked the emission of a fluid simultaneously with orgasm. Finally, it was the work of Ladas, Whipple & Perry about the G point, in 1982, the one that most contributed to the social diffusion of this issue, generating a period of new investigations about female sexual response.

The possible anatomic structure of the supposed ejaculation would be the following: as sustained by Testud & Latarjet (1975), around the urethra we find a lot of urethral and paraurethral glands that, together, receive the name of “female prostate”. This name has been assumed by others (Johnson, 1922; Huffman, 1948; Sevely & Bennett, 1978; Zaviavic & Whipple, 1990; Zaviavic, Sidlo & Borsokae, 1933; Gittes & Namakura, 1996, etc.). The urethral glands drain in the urethra, differentiating them from the paraurethral glands because the later drain in the vestibule, around the urethral meatus. Histologically, they are similar to the male prostatic glands (Testud y Latarjet, 1975; Tepper et al., 1984), although the ductal tissue predominates over the glandular tissue.

The same authors also claim that, apart from the previously mentioned glands, there exists the yuxtaurethral glands or Skene’s glands, which drain below the urethral meatus, in the position 4 and 8 (taking as reference the position of the numbers in the sphere of a clock).

With the bibliographical relaunching of the female ejaculation, the investigations have been oriented in two clearly different directions. On one hand we have those who claim that any ejected fluid is a product of certain degree of urinary incontinence (Kinsey, 1953; Masters & Johnson, 1988; Bohlen, 1982; Kaplan, 1983; Golberg et al. 1983, Alzate, 1985, etc.). On the other, we have all those authors that try to prove that women emit certain fluid, different from vaginal lubrication, during their sexual response (Grafenberg, 1950; Sevely & Bennet, 1978; Belzer et al., 1981; Perry & Whipple, 1981; Addiego et al., 1981; Sensabaugh & Kahane, 1982; Belzer et al., 1984; Zaviavic et al., 1984; Stifter, 1987; etc.). Thanks to this last group, the presence, in the supposed female ejaculation, of prostate acid phosphate and fructose, elements normally present in male ejaculation, seems proven.

The quantity of fluid mentioned varies a lot according to different authors. Belzer (1983) estimates 10 ml; Goldberg (1983), from 3 to 15 ml.; Bullough (1984) 12 ml; Zaviavic (1987), 16 ml. and Heat (1984) from 30 to 50 ml.

Anyhow, the investigators that support the existence of female ejaculation, seem to agree that it is a possibility that actually occurs in very few women: 10% for Whipple and Perry (1981), 14 % for Bullough et al. (1984), 40% for Darling, Davidson and Conway Welch (1990) and a 6% for Kratochvil (1994).

In our clinical experience, we can divide the women according to those that do not believe in female ejaculation (understood as expulsion of fluid during the orgasm or feeling a greater humid sensation that increments itself during the climax), those that believe that they loose urine during the orgasm and those that believe that female ejaculation is a common happening, till the extent of a women coming to inquire about a possible anorgasmia because she “didn’t ejaculate”.

The works appeared on the female ejaculation have partially tranquilized those women who believed that they emitted urine during orgasm but it has created, in certain groups, the quest of the female ejaculation, as in its day happened with multiorgasmia.

We do not think to be wrong when we claim that, in a way, all these publications, and the ones referred to the G point, have fattened the list of the sexual myths instead of optimizing the sexual life of women.

HYPOTHESIS

The existence of urethral and paraurethral tissue that is functional and not an atrophied gland seems clearly proven. We are also completely sure of the existence of women that, during the orgasm, expulse a certain amount of fluid (we have collected up to 16 ml.). Nevertheless, the authors that have investigated this issue, called the “female ejaculation”, seem to agree that only a certain and limited number of women do actually “ejaculate”.

If all women have a “female prostate”, our hypothesis is that most women ejaculate, although they are variations in the quantity of the emitted liquid and/or the direction of the emission. We think it is quite possible that women that do not have perception of ejaculating during the orgasm, is because the product of their “female prostate” is very scarce or it takes the retrograde direction towards the bladder, as occurs in the retrograde ejaculation of certain men.

Our experimental hypothesis, presupposes that if prostate specific antigen (a specific component of masculine prostate, present in seminal liquid) appears in postorgasmic urine the following suppositions would be confirmed:

-The urine emitted after the orgasm carries the product of the “female prostate” on its way through the urethra.

-The postorgasmic urine has diluted PSA produced in the “female prostate” that could have fallen into the bladder because of incompetence of the sphincter in the moment of the orgasm (theoretically, it should be closed) or because the vesical sphincter relaxes with the orgasmic contractions and the gravity force pushes the fluid in the women in supine position (this occurred to us as a consequence of observing that those women that ejaculate outwards, that is, that emit fluid in the moment of the orgasm, comment that this emission has much more quantity when they are standing, favoring the effect of gravity).

Resuming our position, we believe that all women ejaculate, that is, produce more or less quantity of secretion of the urethral and paraurethral glands and Skene’s ducts and expels it outwards, or inwards towards the bladder, with the orgasmic contractions.

With the confirmation of our hypothesis we intend to confirm the previous works about female ejaculation, calm those women that fear that they are urinating while experiencing orgasm and, finally, break the growing myth of the “ejaculating superfemale”.

METHOD

a) Sample:

We gave information about the objectives of our investigation to the female students of different Masters in Sexology, women associations and other entities. After that, we asked all these women for samples of urine and “ejaculated” fluid. We established an anonymous system by which the samples could reach us without us knowing from where they proceeded. If the women chose otherwise, they could also identify their samples. Once in the laboratory, the samples were filtered and numbered for the analysis.

The complete sample consisted of 24 women, ages between 24 and 48. Six contributed with “ejaculation” samples, and the rest only with urine samples.

b) Procedure :

We did a Microparticle Enzyme Immunoassay (MEIA) of the pre and postorgasmic urine to detect PSA, using the Abbot AxSYM SYSTEM (1994, 1996), system and apparatus, and AxSYM PSA reactivities. We also analyzed the liquid emitted in the moment of orgasm of our six samples to establish similarities and differences with the postorgasmic urine. Previously, we informed the women that they had to attain orgasm by manual self-stimulation, without having any contact with men’s genitals, having previously washed their own genitals and a minimum of two days after the last sexual relationship.

The biochemical parameter analyzed, considered by us the most specific and important to confirm our hypothesis, was the PSA. The importance of this parameter lies in the fact that it has only been found in prostatic tissue and in no other normal or pathological tissue. It has been isolated in seminal liquid (Wang et al., 1979, 1982; Papsidero et al., 1981; Nadji et al., 1981). It is a glycoprotein with a molecular weight of 33.000 to 34.000 daltons, with 7% of carbohydrates in its molecule, that is found in the epithelial cells of prostatic ducts. It is observed in the prostatic secretion. On the other hand, women do not present PSA in urine or serum.

RESULTS

In 75% of the postorgasmic urine samples, we detected PSA. Applying a two-tailed Wilcoxon’s pairs signet-ranks test, we found significant differences between pre and postorgasmic urine ($p=0.0002$).

The mean PSA value in postorgasmic urine was 0.09 ng/ml when, theoretically, women do not have PSA.

Out of the six women that gave us “ejaculation” samples, we found PSA in 100% of them being the average value 6.06 ng/ml. This extremely high figure was because one of the samples gave a value of 32 ng/ml of PSA (the analysis was repeated five times to confirm it) that can be caused by some kind of oncology pathology or maybe contamination of the sample by male semen. If we discard this figure, the mean value of PSA in ejaculation samples was of 0.82 ng/ml.

In the postorgasmic urine of the subgroup of women that ejaculated, the levels of PSA were higher (mean value= 0.31 ng/ml, once discarded the extreme value sample previously mentioned) than in the rest of the samples of postorgasmic urine.

CONCLUSIONS

The obtained data seems to confirm our hypothesis that at least most women (75% of our sample), contribute, during orgasm, with certain amount of PSA that can only come from the urethral and paraurethral glands (female prostate). We think it proved, therefore, that during orgasm, the so called female prostate is active emitting more or less quantity of fluid to the urethra. The fact that some women detect this fluid and others don’t depends on the quantity of it and the direction of ejection, being, in any case, detectable in the postorgasmic urine. This idea is reinforced by the fact that, women that perceive this “ejaculation”, have higher levels of PSA in the postorgasmic urine than women that do not, being unidentifiable in both cases in preorgasmic urine.

On the base of this data, we conclude that all or nearly all the women ejaculate, existing variations in the quantity and subjective perception of this ejaculation. Therefore, our investigation also expects to create a tranquilizing effect in women in two ways: in those that do perceive their ejaculation, assuring them that it is a perfectly normal and, probably, common phenomenon. In those that do not perceive it, avoiding

them an “endless quest” in search of their ejaculation, because they probably do ejaculate but in scarce quantity.

DISCUSSION

These results, however, leave some questions unanswered.

First of all, we can not state without doubt if the female ejaculation is related to the sexual response or if it is a parallel phenomenon induced by the orgasmic contractions.

We do not know either if the emission of a greater quantity of fluid is related to a bigger glandular structure. It would be interesting to study the glandular morphology of women that expulse fluid because it is possible that, in occasions, the emission of a big quantity of liquid is supported by a Skene's ducts cyst (Lee & Kim, 1992, find 7 cases among 14.500 births) or a urethral diverticulum. In fact, some women have told us that when they reach an orgasm after a long period of sexual abstinence, the ejaculated quantity is enormous and it goes on diminishing with each orgasm until nearly disappearing.

Another doubt concerns whether the increment of PSA occurs as a result of the sexual excitement or whether it is a necessary to have an orgasm. Zaviacic and Whipple (1990), observe that out of ten women that have a orgasm that can be detected, one third emit a liquid after a fast stimulation, while other third emits the fluid in the moment of orgasm, after about 15 minutes of stimulation. The question is if the liquid emitted by the first group has the same biochemical composition than the liquid emitted during orgasm.

Last but not least, we should also start thinking about a new denomination for what we have referred to as “female ejaculation”. Some feminists argue that these investigations tend to refer to this phenomenon in women as an analogy of processes occurring in men. As we have tried to prove in this investigation, “female ejaculation” is probably much more widespread than what we thought previously, being a normal response in women and not a exceptional happening in only some of them.

Future investigation lines should try and, first of all, argue back the results of this investigation with a wider sample and using an immunoradiometric assay (that is more precise than MEIA) and then answer the various questions elicited by the present investigation.

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