

LETTERS TO THE EDITOR

Commentary on the PAPER by Dr. A. Ostrzenski: “G-Spot Anatomy: A New Discovery”

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In his paper, “G-Spot Anatomy: A New Discovery,” Dr. Ostrzenski claims to have “documented . . . the anatomical existence of the G-spot . . .” His claim is based upon his dissection of the vaginal wall of an 83-year-old multiparous cadaver. He states “. . . the bluish grape-like anatomical composition of the G-spot was observed . . . [including] . . . a rope-like (vessel) structure. . . . The G-spot . . . looked like the cavernous tissues . . . [it] . . . appeared to be erectile tissue without any palpable gland within the tissues.”

We submit that the author’s claim to have discovered “the” G-spot does not fulfill the most fundamental scientific criteria. He provides no histological evidence to support his assessment that the tissue is erectile and not glandular, whether the “rope-like (vessel) structure” is vascular or duct-like, or whether the tissue is innervated. He assumes that the tissue is normal; he does not even entertain the possibility that it is pathological. A classical physiological criterion for assuming that any bodily structure performs a postulated function is to observe whether controlled lesion, extirpation, or localized stimulation of that structure affects the function, and/or whether its physiological activity correlates with the function. In the absence of such evidence, it is not valid for the author to claim more than that he has identified a possible anatomical constituent of whatever is “the G-spot”—a still scientifically unresolved issue.

A unique anatomical confluence of potentially erotogenic structures exists at the site that other investigators have considered to be the G-spot—i.e., anterior vaginal wall, clitoral body/crura straddling the vagina, the urethra, Skene’s Glands (= female prostate or “para-urethral” glands), the vestibular and Bartholin’s glands, the Kobelt plexus, which is part of the clito-urethro-vaginal complex involved in vaginally activated orgasm [1,2], the rich nerve supply, and the surrounding muscle and connective tissue [3–5]. Pressure exerted against the anterior vaginal wall could likely stimulate several or all of these differentially innervated structures in combination [1]. To claim, as Dr. Ostrzenski has in his paper, that only the one single entity he found embedded in the vaginal wall is “the” G-spot, betrays the rich complexity of what others have appreciated and characterized as the G-spot—a variable anatomical and functional zone of erotogenic complexity, not a single structural entity. That this sensitive region, felt through the anterior vaginal wall, is not a single structural entity, was stated by Perry and Whipple when they named it the Grafenberg spot, later termed the “G-spot” [6,7].

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Statement of Authorship

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(c) Analysis and Interpretation of Data

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Category 2

(a) Drafting the Article

Barry R. Komisaruk

(b) Revising It for Intellectual Content

Barry R. Komisaruk; Beverly Whipple; Emmanuele Jannini

Category 3

(a) Final Approval of the Completed Article

Barry R. Komisaruk; Beverly Whipple; Emmanuele Jannini

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Response

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Dear Editor:

I'm greatly appreciative of the comments on my recently published article in the *Journal of Sexual Medicine* [1]. The authors of the comments suggested that my anatomical dissection on the fresh cadaver to establish the existence of the G-spot is at best "he has identified a possible anatomical constituent of whatever is 'the G-spot'—a still scientifically unresolved issue." Ostrzenski failed to provide histological evidence to support his anatomic assessment of the tissue and by doing so, Ostrzenski "does not fulfill the most fundamental scientific criteria." In reply, I wish to emphatically stress, the most scientific criteria is to recognize that the anatomy and histology are two separate basic science fields in medicine. The distinction of these two fields is not only "the most fundamental scientific criteria" but also mandatory to know about their independent existences. The author(s) of the commentary failed to recognize it. Also, it is "the most fundamental scientific criteria" to read the objective of the study on which the authors of the commentary planned to make comments. In my study and my article, the objective and hypothesis have been plainly presented; therefore, it is difficult to comprehend how this was not applied by the authors of the commentary. It is also a fundamental scientific and ethical principle to evaluate the scientific article within the scope which it was designed and executed.

"A classical physiological criterion for assuming that any bodily structure performs a postulated function is to observe whether controlled lesion, extirpation, or localized stimulation of that structure affects the function, and/or whether its physiological activity correlates with the function. In the absence of such evidence, it is not valid for the author to claim more than that he has identified a possible anatomical constituent of whatever is 'the G-spot'—a still scientifically unresolved issue."

The G-Spot Article—Some of Its Limitations

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Dear Editor,

We write to express our surprise at the publication of the study by Ostrzenski on the "G-spot anatomy: a new discovery." While it was critical about previous anatomical studies on the G-spot, especially that of Thabet, it failed to present any limitations of his own study, the accepted procedure in any scientific paper and usually reflected by peer review recommending that these be mentioned [1–3]. What are these limitations? They would have to include:

1. The lack of any sexual history of the female in question so there is no evidence that she ever had so-called "G-spot" orgasms from penile–vaginal intercourse or by digital stimulation of the anterior vaginal wall.
2. No histological details of the "dissected G-spot tissue."
3. No nervous connections innervating the organ were described.
4. No mention that anatomical abnormalities/oddities/growths can exist in individuals and that the structure could simply be an aberrance, especially as it is found in an 83-year-old female.
5. It is but a single case study, which can be of importance but it can also be idiosyncratic and of little value [2].

It is exactly what my article claims—that I have "... identified a possible anatomical structure..." of the G-spot. Despite the fact that anatomy and physiology are two different scientific fields that are governed by two different sets of scientific principles, to test the G-spot physiological phenomenon under the conditions presented by the authors of the commentary is impossible to execute. The cadaver subject's physiology stopped functioning at the time of death; therefore, no additional per se physiological study of the G-spot can be reliably performed. An experiment on a live subject can only be partially conducted; stimulation of the G-spot and its reaction can be recorded. To resect or even take a biopsy from the G-spot is clinically and ethically inconceivable. Therefore, the authors of the commentary have presented a wish list that is impossible to materialize in my view and not a tangible scientific suggestion.

The remaining comments related to the mechanism of orgasms offered by the authors of the commentary are beyond the scope of my article. Therefore, I will not elaborate on this aspect of their comments.

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Conflict of Interest: None declared.

Reference

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6. No confirmation that the structure had any nervous connection to the spinal cord/brain.

Also, in relation to the anterior vaginal wall, it was suggested by Levin [1], well beforehand, that "because the anterior vaginal wall has at least three putative erogenous sites namely Halban's fascia, the urethra and clitoral tissue while the so-called G-spot/paraurethral glandular area is more a zone than rather than a punctate spot... it would be more sensible to regard the whole area (urethra-clitoral-G area–Halban's fascia) as the 'anterior wall erogenous complex'" [1]. The overlooked studies by Zaviacic and his coworkers on the female prostate should also have been referred to by Dr. Ostrzenski [4].

The study and its conclusions should be read with these limitations in mind.

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Response

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Dear Editor:

I would like to take this opportunity to express my gratitude to the commentary author for reviewing my article and taking the time to share feedback. I would also like to maintain the spirit of "surprise" used in the initial letter to the editor. The author's comments fall into the following levels of reply: (i) surprise; (ii) constructive criticism; (iii) scientific integrity of comments; and (iv) scientific data supporting comments.

Surprise

The author wrote:

1. "We write to express our surprise at the publication of the study by Ostrowski on the 'G-spot anatomy: a new discovery'. While it was critical about previous anatomical studies on the G-spot, especially that of Thabet . . ." If one reads my article with well-deserved attention, one will notice that I have merely compared Thabet's results with my findings and was not critical about Thabet's previous intraoperative study.
2. About the limitations of my article, the author asked: "What are these limitations?" and presented them as:
 - "no biological details of the 'dissected G-spot tissue' and 'no nervous connections innervating the organ were described'."

Indeed, it is a surprise that histology was expected, since my article's objective was: "To identify the anatomic structure of the G-spot." The histology of my study was beyond the scope of the study's protocol.

- "no confirmation that the structure had any nervous connection to the spinal cord/brain." The nerve distributions within and connected to any other anatomical structure was not the aim of this study ("To identify the anatomic structure of the G-spot").
- "no mention that anatomical abnormalities/oddities/growths can exist in individuals and that the structure could simply be an aberrance especially as it is found in an 83-year-old female."

A biopsy and histologic evaluation have not been performed, since the study's protocol and objectives did not call for such evaluation. In several sections of the manuscript (abstract, introduction, and materials and methods), the aim and the methodology of the study objectives have been clearly stated and how they were overlooked is beyond my understanding.

- "the lack of any sexual history of the female in question so there is no evidence that she ever had so called 'G-spot' orgasms from penile-vaginal intercourse or by digital stimulation of the anterior vaginal wall."

If only I knew how to resurrect the cadaver from death, I would do it and obtain a clinical sexual history. In the text of my article, I clearly stated: "The study was conducted on a fresh cadaver at the Department of Forensic Medicine." By definition of forensic medicine, we did not have any access to the cadaver's sexual history, and asking for it is clearly not possible!

- "The overlooked studies by Zavaicic and his coworkers on the female prostate should also have been included."

The mentioned study published by Zavaicic and Ablin RJ in 1998 did concentrate on the "female prostate" and tried to document that "prostatic tissue exists in the female" [1]. Obviously, the studies by Zavaicic and his group were not omitted in my article, but simply were not pertinent to my objectives. By no means did I try to dispute the scientific value of Zavaicic's work. It simply did not fit into my study protocol.

Scientific Integrity of Comments

- "It is but a single case study which can be of importance but it can also be idiosyncratic and of little value (see Levin [2])"

In 2001, Vandembrouke reported that "Case reports and case series have their own role in the progress of medical science. They permit discovery of new diseases and unexpected effects (adverse or beneficial) as well as the study of mechanisms, and they play an important role in medical education. Case reports and series have a high sensitivity for detecting novelty and therefore remain one of the cornerstones of medical progress; they provide many new ideas in medicine. At the same time, good case reporting demands a clear focus to make explicit to the audience why a particular observation is important in the context of existing knowledge." In 2007, Levin published a review article entitled "Single case studies in human sexuality—important or idiosyncratic?" in which the author examined selectively the aspect of human sexuality in single case studies and their contribution to the field or whether they are just interesting but idiosyncratic reports.

Neither Vandembrouke's nor Levin's works established a tangible answer on how to interpret a case study [2,3]. Therefore, I concluded that my article significantly contributed to progress in the G-spot research and presented significant potential for clinical applications in the near future.

- "Also, in relation to the anterior vaginal wall, it was suggested by Levin [6], well before, that 'because the anterior vaginal wall has at least three putative erogenous sites namely Halban's fascia, the urethra and clitoral tissue while the so-called G-spot/paraurethral glandular area is more a zone than rather than a punctate spot . . . it would be more sensible to regard the whole area (urethra-clitoral-G area—Halban's fascia) as the 'anterior wall erogenous complex'."

Letters to the Editor

In 1986, Hoch and not Levin reported: "The entire anterior vaginal wall, including the deeper situated urinary bladder, periurethral tissues and Halban's fascia, rather than one specific spot, were found to be erotically sensitive in most of the women examined. This supports our conceptualization of a 'clitoral/vaginal sensory arm of orgasmic reflex' including the clitoris and the entire anterior vaginal wall, as well as the deeper situated tissues" [4].

In 1991, Hoang et al. "... have reviewed the different proofs that confirm that Halban's fascia does exist. The authors have been able to find, separate out, and use Halban's fascia in a series of 263 vaginal operations for genital prolapse, taking an anatomic-surgical approach. From the histological approach, they have shown that Halban's fascia is constituted by fibro-connective tissue strips between which there are large numbers of blood vessels and muscles and nerve endings. As far as sexual physiology is concerned, the authors reviewed the various clinical experiments that have been carried out throughout the world medical literature, which shows that there is an erogenous zone in the upper anterior part of the vagina and they believe that Halban's fascia, which is homologous with the corpus spongiosus, is the site of origin of vaginal orgasm [5]. Therefore, to assign the concept of anterior wall erogenous complex as the Levin's concept is hard to accept as the author(s) proposed "*in relation to the anterior vaginal wall, it was suggested by Levin*" [6]. Despite this mishap in appointing Dr. Levin to the level of a pioneer for creating the concept of anterior wall erogenous complex, the real question is whether the anterior wall erogenous complex really has a connection with G-spot discovery. The answer is "no" because Halban's fascia is the fibro-connective tissue strips between which large numbers of blood vessels and muscles and nerve endings are present. Therefore, the Halban's fascia is located in the subepithelial connective stratum. Taking into account vaginal layers (the epithelium, connective tissue layer, vaginal circular muscles, vaginal longitudinal muscles, the endopelvic fascia) and the anatomic site of the G-spot being between the endopelvic fascia and the dorsal perineal membrane, Halban's fascia will be four vaginal layers above the G-spot location.

If there is any complex structure within which the G-spot is located, it must be the clitoral-urethral-distal vaginal complex. The term delineating this complex was introduced by O'Connell et al. [7-9]. Among other structures, this complex can be entertained as housing the G-spot [10-11].

Scientific Data Supporting Comments

Reviewing scientific references that the author used to support their criticism of my article, none of the references used by the authors to support their view is pertinent to Ostrzenski's article on the documentation of the anatomic existence of the G-spot.

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