

HYPEREROTICISM AREA (H AREA)-

POINTS OF VIEW

Reply to Dr. Patahov Simha and colleagues, Tel Aviv- Israel, received: October 2020

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Question:

Even nowadays, in 2020, scientists are still questioning the vaginal existence of the “G-spot” described by Ernst Gräfenberg and Dickinson in 1950 (1), following a gynecological consultation. Thus, they identified, by palpation of the anterior vaginal wall, an area sensitive to pressure which, by mechanical stimulation, determines the appearance of the sensation of pleasure (fact, in fact, known for a long time), the newly described structure being called erogenous “point” or erogenous “spot”. The mentioned erogenous point was located by the two doctors in the “tissue between the urethra and the vagina”; they stated that “if the vaginal wall is not thickened by a tissue, the woman can never have an orgasm if the clitoris is not stimulated”. That “point” was considered to be the “inner part of the clitoris”, so, practically, the “G” point is not a distinct area.

It was also assumed that the G-spot was stimulated by the urethra, a context in which some researchers consider its existence “a myth”. Perry and Whipple (in 1981) described this area on the anterior vaginal wall as “G-spot” (2,3). Others argue that the G-spot does not exist in some women; a supplemental piece of evidence in this regard would be the non-existence of the G-spot described by another researcher in one of two twin female patients examined (4).

What is the reality about this spot?

Answer:

This “G-spot” is, in fact, a trapezoidal area located at the entrance to the vagina, on its anterior wall, which, since antiquity, was known to cause the sensation of pleasure during sexual intercourse, performed for reproductive purposes (procreation).

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The opinions expressed, in general, by gynecologists, are observations resulting from a simple vaginal examination performed during the usual consultation of female patients, who, due to touching the specific vaginal area in discussion, reported the appearance of a "simple sensation of pleasure"; this situation was interpreted differently by each researcher, sometimes in a very strange way.

An example would be the existence of a "thickened wall (tissue)" which, if the woman does not possess, she can not have an orgasm unless the clitoris is stimulated, so the G-spot would be in the clitoris.

The data concerning the "area that determines female sexual pleasure" were clarified at the time of the anatomical description of the area of hypererotism from a morpho-physiological point of view (Treaty of Clinical Sexology-2015), (5,6,7), which explained the situation and excluded the existence of

the mentioned anomalies. The cellular receptors of the so-called G-spot "located in the urethro-vaginal tissue in the form of a ganglion" are, in fact, on the surface of the anterior third of the wall of the anterior vagina (H Area), (6).

The direct connection between the erectile tissue of the clitoris, the vestibular bulbs, the urethro-vaginal tissue, respectively the neuro-vascular formations of the Hypererotic Area, "H Area", permits the stimulation of cellular vulvar receptors to induce the erotic sensation of the entire vulvar area quickly and intensely in the younger female, promptly causing her orgasm, event that occurs more slowly in older woman.

According to Gräffenberg and other authors, sensitization of the G-spot is done by "pressure" on the urethro-vaginal tissue, respectively directly of the urethral wall, which would produce orgasm in women (1), (Fig.1).



Fig. 1 Hypereroticism Area (H Area), urethro- vaginal tissue (adapted from Wyeth France)

Specifically, the degree of stimulation of cellular receptors causes parasympathetic impulses that dilate erectile tissue by releasing acetylcholine, nitric oxide and vasoactive intestinal polypeptide (VIP) at the nerve endings, causing hyperemia of the H area and the erection necessary for the sexual intercourse.

The direct connection between the erectile tissue of the clitoris, the vestibular bulbs, the urethral tissue, the urethro-vaginal tissue and the vascular plexus of H Area, makes the stimulation of the receptors in these above-mentioned structures determine the erection of all cavernous elements of the vulva, respectively the state of vulvo-vaginal hyperexcitability, which is followed by lubrication of the genitals, which will be prepared for penetration and copulation, ejaculation and orgasm (8, 9,10).

The anastomoses between the corpora cavernosa of the clitoris and the corpora cavernosa of the urethra are also explained by the flow of venous blood, mainly and directly to the circumflex veins, which is another proof of the vascular connection between the clitoris and H Area, structures considered by women as the most important vulvo-vaginal erogenous zones.

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From a morpho-physiological point of

view, in this context, erection appears as a complex vascular-nervous mechanism, in which the relaxation of the cavernous spaces is the result of the blood flow, in response to excitations of local and central nerve receptors and which is perceived as “erotic” by woman.

The hypervascularization of H Area, through the connection with the urethro-vaginal spongy tissue, as well as the common innervation with the other vulvo-vaginal erectile organs, explains, once again, why the manual stimulation maneuver, performed in the H Area or at the tactile corpora of the labia minora, determines the hyperemia of the neighboring erectile organs completely, respectively the vulvar erection that the woman sees and feels, as well as the man.

H Area hypervascularization appears as an additional factor associated with the existence of the vulvo-vaginal cavernous structure, which acts on a vaginal wall already congested by Gussenbauer erectile tissue, during the period of local arousal and by control of the brain.

Normal congestion of the vascular plexus of the vaginal wall has lower erogenous effects than congestion of the cavernous tissue, which, due to albuginea, confers a special morpho-functional constitution to the respective organs in copulation, ejaculation and orgasm.

The direct connection between the labia and the clitoral area also determines the stimulation of the erection of the Vaginal Area of Hypereroticism through the existence of the clitoral- H Area neuronal synapses.

Neighboring nerve threads are the connection between erogenous zones. Between

the clitoris and H Area there are interneuronal synapses proven by the transmission of the exciting impulse from the clitoris to H Area and vice versa, a context in which interzonal morpho-physiological features appear.

Among the vulvar structures consisting of erectile tissue and with increased bioexcitability, in general, the woman considers that the area with the highest erotic sensitivity belongs to the clitoris, which also offers her the strongest orgasm, respectively an increased number of orgasms.

In the statistics of our research department, on the same place or on the secondary place appears the area of hypereroticism (H Area), which has a direct connection with the clitoris (5,6).

The vulvar erectile tissue and that of the area of vaginal hypereroticism is controlled by the parasympathetic nerves, which reach these structures through the pelvic nerves of the sacral plexus (S2-S3-S4).

Orgasm, single or multiple, may be triggered by any of the erectile areas (labia, clitoris, vestibular bulbs, H Area).

Regarding the difference in sensitivity of „Zone H” in the two twin women evaluated in the case study of Burri et al

Monozygotic (identical) twins come from the segmentation of the same fertilized ovum. They are monoclonal and rarely bicorial, respectively they are genetically identical, and the phenotypic differences between them are due to environmental factors.

On the other hand, bizygotic twins come from the separate fertilization of two eggs by two sperm. They are bicorial and share 50%

of genes. The phenotypic differences (dissimilarities) are determined, therefore, genetically, by the biological process of evolution and by mesological factors (11).

The complexity of the individual consequences given by the genetic structure and heterogeneity (12), may determine morpho-functional changes of the organism, respectively with the occurrence of the somatic sexualization disorders or lack of tactile sensitivity of the Vaginal Area of Hypereroticism, as was the case of one of the twin women analyzed (4).

Also, errors that may occur during „cleavage” or disjunction, in the morula or blastocyst stage, can cause the occurrence of cytogenetically different monozygotic twins, with chromosomal abnormalities and therefore major sexual differences.

All these biological events may explain why the Hypereroticism Area does not exist in some women or has an excitability of variable intensity or is difficult to locate anatomically or even the stimulation of the H zone is accompanied by the sensation of urination.

Conclusions

The fact that even today it is discussed in contradiction about the existence or not of the vaginal area of Hypereroticism demonstrates the importance given over time to an „effect” of stimulating this area, namely the onset of „pleasure”, and not morpho-physiological features of the vulvar erectile tissue and that of the area of hypereroticism in the antero-inferior third of the vagina, described in „Treaty of Clinical Sexology”, edition 1 of 2015, respectively in „Treaty of Clinical

Sexology”, edition 2 of 2018, bibliographic sources where there are clarified the assumptions (hypotheses) you mentioned.

The resting membrane electrical potential is lower for H-Area cells, revealing the structure with morphology and special neurovascular system of this segment, at which the tactile receptors process and transmit the information detected in H-Area to the nerve fiber branches differently from the rest of the vagina.

The received information reaches the brain which will sensitize the erectile tissue of the H area, an anatomically different structured region compared to the two posterior thirds of the vagina (6),(Fig.2).

Embryology

The striated urogenital sphincters are made out of the genital diaphragm, including the urethrovaginal sphincter of which the

proper sphincter (external sphincter) of the urethra is formed, located around the urethra and the proper sphincter of the vagina built around the vaginal channel. The topography of those muscles includes the urethrovaginal component, or the H Area, intricate in the erection, orgasm and ejaculation, and which has common vascularization and innervation, as I have shown (5,6).

The differentiated morphology of 1/3 inferior of the vagina to the superior 2/3, is the result of different embryological origin, a process in which the superior 2/3 of the vagina come from the urogenital sinus, and the inferior 1/3 from the genital ridge, a context in which the blood vessels, lymphatics and nerves have a common topography with the vulva. Thus, the inferior third of the vagina results from the proliferation of the urethrovaginal sinus tissue of which the urinary bladder is made, the urethra with the urethral vestibular and paraurethral glands, the vaginal vestibule, which explain clearly the special anatomical structure of the H Area

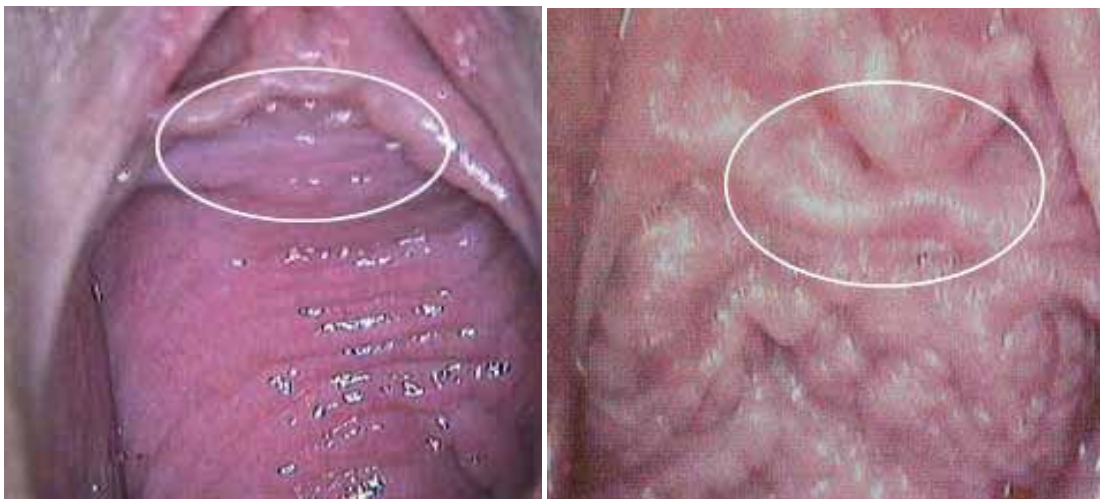


Fig. 2 Hypereroticism Area (H Area), (images from JCS, Vol.1, No.1/2018))

regarding the close relationship with the urethra and vulvar erectile bodies, common innervation and vascular anastomoses (vascular plexus),(6,13).

Innervation of the H Area

The H Area is richly innervated by branches of the dorsal nerve of the clitoris, accompanied by a specific vascular system.

At the level of the clitoris, especially in the glans - the nerve fibres of the dorsal nerve of the clitoris make a nervous plexus with very high erotic sensitivity.

From the dorsal nerve of the clitoris, a branch of the pudendal nerve, nerve fibres that innervate the clitoris tissue and the subclitoridian part, the vaginal introitus and the H Area are starting, where a common innervation is achieved through labial, vaginal, vulvar branches - at the surface and in depth (5,6).

On this complex above-mentioned innervation intervene the nerve branches of the genital-femoral nerve, the large and small abdominal- genital, branches of the lumbar plexus, the small sciatic, the pelvic nerves and the internal pudendal nerve, sympathetic and parasympathetic autonomic branches, which innervate also the muscles of the H Area (6).

I specify the fact that the nerve branches of the erectile "H" area disappear with the removal of the vulvar erectile organs, establishing in this case, the innervation of the rest of the vagina, which comes from other nerve sources (6).

In this context, by the direct nervous connection between the clitoris, urethra, vagina and vulva, a "vulval- vaginal- urethroclitoral

functional complex system" is achieved, in which the urethra takes part not only in the act of micturition, but also in the specific physiological genital changes, such as those caused hormonally in the monthly cyclic changes, which, automatically determine a local hypervascularization. This also explains the favourable pre, intra, and postmenstrual erotic status (6).

As shown, the erectile tissue is found below the vaginal mucosa, and in the inferior part, the sensitive corpuscles receive the manual stimuli by transmitting the impulse received to the nerve branches.

These nerve branches are connecting with the vulvar erectile bodies, especially with the tactile corpuscles (of voluptuousness), the labia minora and the clitoris. Nerve branches get anastomosed constituting plexuses, and between these and the erectile organs there is a complex neuro-vascular link, which causes the erection.

These nerve fibres coming from the pudendal nerve (N. pudendus), are reached by fibres from S2 and S3. It goes to the perineal nerve and the dorsal nerve of the clitoris, that sensitively innervate the erectile structures, the clitoris thus being the most powerful erogenous support in female, even if in the study conducted, many patients said that the erogenous effect of the H Area sometimes exceeded that of the clitoris.

This peculiarity explains why the erotic sensitivity of the H Area is net superior, for example, to the sensitivity of the posterior vaginal wall (6,7).

The perineal nerve branches (N. perinealis) make the connection with the labias and its lateral branches make the connection

with the urethral triangle, explaining the erotic sensitivity and specific congestion of the urethro-vaginal area.

The muscle branches innervate the transverse perineal muscle, superficially and in depth, and they reach the bulbo- and ischio-cavernosus muscles and the urethra sphincter.

A branch of the bulbocavernosus reaches the corpus cavernosum of the urethra (corpus cavernosum urethrae), or the urethral mucosa, explaining the connection of the vulvar erectile bodies with the urethra, and by this with the vagina – the H Area.

By the dorsal nerve of the clitoris and its branches, innervating the urethra, the H Area, vestibular bulbs and the superior third of the labia minora - a nerve network is created, which explains the increased sensitivity of the whole area only when touching one of these structural components, as well as determining venous plexus hyperemia covering all surface area (clitoris, labia, bulbs, the H Area).

The differentiation of sensitivity of certain spots of the above-mentioned organs is given by the number of receptors, the reduction of the threshold of excitation thereof, thereby increasing their sensitivity, and the nerve fibre structure leading the information converted into bioelectric impulses (6).

The direct connection of the vagina with the urethra and bladder, is explained by the fact that upon the initiation of vaginal excitation in the H Area, the need to urinate often appears, which in my research exists in 68% of patients.

Such increased sensitivity of the external genital organs, at the accumulation of urine in the bladder, causes local congestion, which

affects not only the urinary bladder, but also the vulva (6).

Obviously, an important role is played by the vegetative innervation through the parasympathetic system that acts as a vasodilator, that is crucial in the erection, the sympathetic being vasoconstrictor.

Vegetative branches come from the lower hypogastric plexus, especially from “De-Lee” ganglia, and the cerebro-spinal branches from the sacral plexus through the internal pudendal nerve.

The particular sensitivity of the vaginal mucosa that makes the H Area is given by the structure of the structures located in the urethro-vaginal portion, respectively, the receptors, innervation, cavernous tissue, type of vascularization, and the embryological origin.

The increase of sensitivity in the H Area is explained by neural synapses, made by the process of neurogenesis, where the growth of the axon and the dendritic spines form the interneuronal connections, enabling the transmission of the nervous influx (the stimulant) between organs with a strong erogenous constitution of the area (6).

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