

# Is there a Vaginal Area of Hypererotism (H Area) or a G spot?

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## Is there a Vaginal Area of Hypererotism (H Area) or a G spot?

### Abstract:

The Vaginal Area of Hypererotism describes only the effect, namely the state of pleasure of the vaginal area of Hypererotism and the lack of the description of the morphophysiology of the area, which by its structure determines the erotic state against which many specialists have brought countless arguments, invoking even the non-existence of the Vaginal Area of Hypererotism.

The research proves that there is a zone of cellular bioexcitability even increased as compared to the rest of the vagina, the tissue with superior erectile properties being related to clitoris, so with the erectile border areas.

The area I called the Area of Hypererotism, the “H” Area is part of the vulvo-vaginal erectile complex (fig.1).

The female’s first response to the male’s

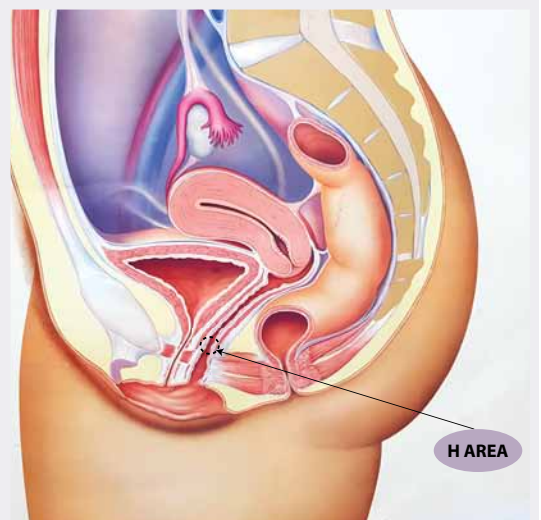


Fig.1 - Anatomical drawings – location of the Hypererotism Area

manual stimulation of the H-area is the lubrication of the vagina.

### Key words:

Hypererotism “H” area, bioexcitability, stimulus, anterior vaginal wall

## Introduction: The motivation of the work (Purpose)

The area has been known since antiquity, when it was shown that it “produces maximum pleasures”. In the 17th century, it was mentioned by Regnerus De Graaf and in 1950 by E. Gräfenberg, known as the “G” spot.

Absolutely all the authors mentioned only the effect, “the state of pleasure”, but no one explained why the erogenous effect occurred. This is why the existence of this area or its absence is currently under discussion.

This is the motivation of my work.

## Method:

The study (fig.2) that was conducted initially on a total of 200 people was later extended to 800 women aged 16-45. It showed that 72% of the studied people showed distinctly an increased erotic sensitivity of the “H Area” as compared to the rest of the vagina, 16% had the same sensitivity across the entire vagina, and a rate of 12% had no vaginal erotic sensitivity. It was also found that 68% of the people, consulted on the gynecological table, with an increased sensitivity experienced the need to urinate when touching the “H Area”, by unimanual examination.

The sensitivity assessment of the two vaginal areas, H area and rest of the vagina, was carried out by a subjective test (bi- and unimanual vaginal touch) and by measuring the biopotentials of the two segments.

Thus, I found that:

- the response to the electric stimulus occurred differently, respectively with a lower intensity in the H area, and with a higher intensity in the rest of the vagina, viewed on the electrogram. The threshold (liminal) intensity was 1/3 higher for the vaginal tissue as compared to the H Area. The collection and replaying of the electrical signal for the same amplitude on the electrogram was made by a lower stimulation in the H Area and a higher stimulation in

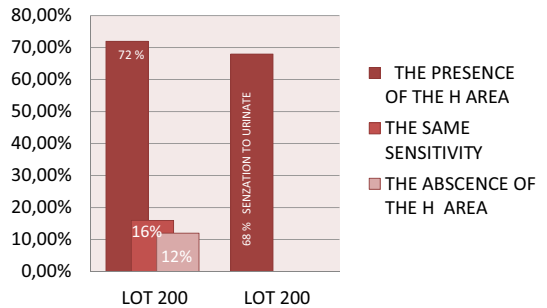


Fig.2 -H Area Study

the rest of the vagina, clearly showing the difference in potential for this action.

- the time between the application of the stimulus and the response was significantly shorter in the vaginal area of hypereroticism;
- the potential for resting is shorter for the cells in the H Area, proving the existence of a structure with particular morphology and a neuro-vascular system where the tactile receptors process and transmit the information collected from the H Area to the nerve ramifications differently from the rest of the vagina. They reach the brain, which will sensitize the erectile bodies of the H Area - anatomically different from the rest of the vagina.

## Description

My research proves that, in fact, there is an “area”, (not a spot), located on the anterior-inferior vaginal wall, having a surface with markedly increased erectile sensitivity compared to the rest of the vagina, due to its particular neuro-anatomical structure, which I have called “the vaginal area of hypereroticism”.

The anatomic topography does not provide a good view of the area, when the patient is in a normal gynaecologic position, as the pubis symphysis covers with approximately 1-1.5 cm the edge of the H Area, context in which the surface can be endoscopically demonstrated (fig. 3a, b, c).



Fig.3a -



Fig.3b



Fig.3c-

Fig.3a, b, c - Hypereroticism Area shown by endoscopy



Fig.4.a, b - Different appearance and structure of the H area by comparison to the remaining vagina

The immediate retropubic part can, however, be demonstrated in the case of a genital prolapse, which, by the herniation of the pelvic organ, by the uro-genital hiatus engages the anterior-lower third of the vaginal mucosa (cystourethrocele), due to the insufficiency of the supporting mesenchyme. Due to the tension produced, the mucosa appears without folds.

I mention that the vaginal wall that constitutes the H Area has a special structure due to the intimate adhesion special to the urethral wall, by the suburethral tissue, which has a specific structure (fig.4a, b). Because of this, the surface of the mucosa has a different aspect. For this reason, the mobility of the vaginal mucosa is reduced on a distance of approximately 2-3 cm.

### The average dimensions in relation to the variable values of the types of vagina:

- transverse diameter: 2/2.5 cm;
- anterior-posterior diameter: 2,5 cm.

The area represents about a quarter of the length of the anterior vaginal wall.

### Form:

Trapezoidal, with single and precise topography.

### Course:

Oblique, downward and forward.

### Appearance

The vaginal mucosa is pink coloured (fig. 5) and is thicker than the H area. The surface with thicker transverse folds (*ruge vaginalis*) (fig. 6) is well perceived visually and upon touch. On the midline there is a longitudinal eminence (*columna rugarum*), which has on the anterior edge of the vulval opening of the vagina a small thickening (the vaginal tubercle), located just under the urethral meatus. On the upper side the longitudinal column



Fig.5 - Specific coloring of the H area



Fig.6 - *Rugae vaginalis* in the H area

splits, forming a transverse fold at the external opening of the cervix, thus detaching the "Pawlick's triangle".

### Relations

Anterior: the urethra, totally;

Anterior-inferior: the pubic symphysis;

Inferior: the anterior-superior part of the hymen membrane or the hymen carunculii of the vaginal opening;

Superior: extends the anterior vaginal wall;

Posterior: the vaginal cavity, or the posterior vaginal wall;

Lateral: the urogenital diaphragm, vestibular and bulbar-spongy bulbs, the middle part of the perineal aponeurosis and the levator ani muscles.

## Role

It determines and increases the state of excitation, it induces the ejaculation and orgasm during the manual manoeuvres of stimulation of the receptors in the area, by an anterior-posterior or circular movement in the self, hetero- or homo excitation.

## Structural peculiarities of the H Area

In order to understand the determination of the eroticism state, namely the morphophysiological peculiarities of the H Area, the anatomical description of its structures is necessary. In principle, I refer to the erectile tissue, the vascularization and the innervation of the area, especially the urethra-vaginal area, all being in a close connection with the surrounding erectile bodies.

The urethra opens in the vestibule of the vagina, through the external opening of the urethra, located posterior to the clitoris. It consists of the mucosa, the submucosa, and a muscle layer of longitudinal fibres on the outside and longitudinal on the inside.

## The vascularization

At the level of the submucosa a submucosal venous plexus is formed, so that any damage causes heavy bleeding. The urethra and the vaginal opening are surrounded by the vestibular bulbs, erectile organs located on the sides of the vaginal opening, at the bottom of labia minora, which are joined by their anterior ends on the midline, above the urethra, forming a venous plexus that communicates with the corpus cavernosum of the clitoris by the communicating venous plexus.

The anterior head of the vestibular bulbs is related to the opening of the urethra, causing during the erection the hyperemia of the area, namely of the urethral meatus. The corpus cavernosum of the clitoris, as well as the vestibular bulbs, have in their structure a cavernous tissue with arteriovenous anastomoses which fill with blood during the erection through the dilated helicine arteries, which are tensioned due to the albuginea, a little extensible membrane that covers, plugging the veins and the blood drain system. The zonal erectile tissue vascularization directly involves the urethral cushion, which is also composed of erectile tissue. Located in the suburethral space (urethro- vaginal) it affects directly the H Area. I emphasize that, since it is an erectile tissue, covered with albuginea, its unique functionality is determined, as compared to the one determined by a simple local hyperemia.

The direct link between the erectile tissue of the clitoris, the vestibular bulbs, the urethral tissue, the urethro-vaginal tissue and the vascular plexus of the H Area causes by the stimulation of the receptors of the H Area, the occurrence of a complex effect, rapidly erectile, with turgidity in large area, preparing the genital organs for copulation, amid an increased libido.

The anastomoses of the corpus cavernosum of the clitoris with the corpus cavernosum of the urethra are also explained by the venous blood leaking, directly and principally, towards the circumflex veins. In this context, the erection occurs as a complex neurovascular mechanism, where the relaxation of the cavernous spaces is the result of the influx of blood arriving in a large quantity through the arteries of the corpus cavernosum (active hyperemia), in response to the excitation of the nerve receptors, local and central, perceived by the person as an "erotic state" that induces the desire (libido) to perform the sexual intercourse (copulation).

I mention the fact that the urethra is separated from the vaginal wall by the urethro-vaginal septum, and between the urethra and the H Area of the vaginal wall, there is a cellular tissue denser than the rest of the area, explaining the strong adhesion and the reduced mobilization between the two anatomical structures.

The hypervascularization of the H Area by the connection with the urethro-vaginal spongy tissue, just like the common innervation with the vulvovaginal erectile bodies explain the increased erotic sensation, induced by digital manoeuvres conducted in the H Area. But in the hyperemia of the automatically erectile bodies the vaginal area of hypererotism is also affected by the above-mentioned connection. The inflow of blood - at the level of the venous plexus of the anterior wall of the vagina - sets a normal erectile state which, however, in the H Area is supplemented by the hyperemia of the spongy tissue, which increases the erection and the sensitivity of the receptors, increasing the excitation and the erotic impulse for copulation, ejaculation and orgasm, of varying intensity.

So, the hypervascularization of the H Area appears as an additional factor determined by the existence of the urethro-vaginal cavernous structure, acting on an already congested vaginal wall, by Gussenbauer erectile tissue, during the local excitation period or by brain control.

The normal congestion of the vascular plexus, the vaginal wall, has lower erotic effects than the congestion of the cavernous tissue, which due to the presence of the albuginea provides a special anatomical shape and functionality to these organs in the act of copulation and the reach of ejaculation and orgasm. I mention that the erectile tone determined by the female genitalia is lower than in male, where the erect penis is so strong, that it penetrates the hymen of virgin females, the anus of females or the rectum in the case of homosexuality.

To the aforementioned data we add the action of the constrictor muscle of the vagina, which is fixed to the corpus cavernosum of the urethra, posterior and on the tendon centre of the perineum, namely on the edges of the vagina and which by contraction increases the vulval-vaginal-perineal vascularization. Also, the muscles of the pelvic diaphragm intervene to achieve the erectile state, including the external sphincter of the anus, which crosses above the anus, the fibres passing medially to the bulbo-cavernosa muscles, which cover the external face of the vestibular bulbs, participating in the establishment of the vaginal sphincter muscle and the external urethral sphincter muscle going from one side and the other of the labia minora.

## 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. 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 urethro-vaginal 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 regarding the close relationship with the

urethra and vulvar erectile bodies, common innervation and vascular anastomoses (vascular plexus).

## 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.

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.

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. In this context, by the direct nervous connection between the clitoris, urethra, vagina and vulva, a "vulval- vaginal- urethro-clitoral 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 post-menstrual erotic status.

As shown, the erectile tissue is found below the vaginal mucosa, and in the infe-

rior 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.

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 ischiocavernosus 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 deter-

mining 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.

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.

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.

## Discussions

As noted, the H Area is innervated by nerve fibre that come mainly from the dorsal nerve of the clitoris and vegetative fibre accompanying the neurovascular plexus, responsible for the cavernous tissue turgor. These fibres get to the H Area receptors by the urethra-vaginal tissue, which take the information from the receptors. Nerve branches ensure the sensitivity of the somatosensory

receptors and transform the stimulus into a nerve impulse, which reaches the brain, the control centre of the genital structural elements functionality. In this case, as shown in the research conducted, the minimum intensity that caused a cellular response, namely the excitation triggering

as a manifestation in the biological system, was obvious in the H Area, as compared with the rest of the vagina. The neuroanatomy of the vulvovaginal bodies and the perineum shows that they are well differentiated in the cerebral cortex, even if they have a common and precise role in the physiology of sexual intercourse. The anatomic masses with spongy structure, by the inflow of blood and the increase of local tension boost the degree of eroticism and the clear desire of copulation. I emphasize that between the vascular plexuses and the cavernous tissue, as shown, not only are there direct connections, but the vessels have common origin and drainage. This does not mean that all morphological elements de-

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scribed above- are not distinctly differentiated in terms of anatomy, the incorporation of an organ into another is an aberration. In this context, regardless of the interested point of stimulation, the erection embraces the entire vulvovaginal area, especially the copulating structures. According to the research conducted, as shown, the increased eroticism of the H Area is determined by the decrease of the excitation threshold of tactile receptors in the H Area, explaining the increased sensitivity of receptor cells, where the cellular depolarization is markedly increased as compared to the rest of the vagina, producing, in turn, the turgor of the H Area cavernous structure, and, therefore, of the surrounding areas by the neurovascular links with the vulvovaginal erectile bodies. Also, the number of receptor proteins (receptors), their density and capacity of reception at the cellular level, on or within the cell is significantly higher in the H Area than in the rest of the area. In a simplistic form, the stimulant, in this case the vaginal stimulation, through manual pressure of the receptors in the H Area, namely of the membrane sensors, controls the cell membrane permeability change, that opens the gates of ion channels, thus responding rapidly to the stimulant. By stimulating the H Area and getting a stronger response (on average with 72%) thereof to the rest of the vagina, it is concluded that the cellular bioexcitability of the H Area is significantly increased as compared to the adjacent vaginal area.

The H Area cellular sensitivity, variable from one person to another, is increased by 0.5-1.2 as compared to the rest of the vaginal mucosa.

This feature is explained by the existence of the internal pudendal nerve fibres, the short nerve fibres, thicker and with a high degree of myelination. At the level of the excited cellular membrane, the nerve impulse transmitted by action potential responded faster from the mechanical stimulation place, along the nerve branches membrane inner-

vating the H Area and entering into direct contact with the other erectile, vulvar nerve branches, especially of the clitoris and vestibular bulbs, in their turn erogenous areas with strong sensitivity through their anatomical structure. In this context, by the excitation of the H Area the triggering of the erotic condition, on average, occurs in 5-7 seconds. The explanation is given by the fact that the H Area cells, when in contact with the (mechanical, electrical, chemical) excitation factor change the cell membrane permeability by activating the ion channels, responding to the stimulant by triggering the erotic excitation condition. The minimum intensity that induces an initial response of the cellular or tissue biological system, is much lower than the intensity required to achieve the same effect in the rest of the vagina, since there is an erotic sensitivity difference of the two areas. Increasing the permeability of the cellular membrane, namely opening the gates of ion channels that was also favourably influenced by the increased vaginal temperature, the pH of the vagina and the vaginal secretion content, which improved the kinetic energy of the molecules, the dimensions and the number of the membrane openings channels. In fact, it is known that membrane proteins are the receptors for the chemical substances, which provide the vaginal content and the pH, giving the increased specific sensitivity. Membrane receptors specific changes activate, each of them or grouped together, the intracellular proteins changing the excitability of the cell in relation to extracellular signals, these explaining different cell sensitivity between the H Area and the rest of the vagina. The study that I conducted has revealed that, in reality, there is a clearly increased sensitivity of the H Area in laboratory investigations, as compared to the one resulting from physical examination. I also believe that the lack of local sensitivity ranging to 12% is one of the major explanations of anorgasmia in female.

## Conclusions

The existence of the Vaginal Area of Hypereroticism is demonstrated and explained by the local morphological structure. This Area is integrated into the functional erectile vulval-vaginal-urethro-clitoral complex system.

The electrovaginal activity and its role in the sexual intercourse has also been studied by other authors (Shafik A. et al.) who recorded electrical waves transmitted cranio-caudally involving a pacemaker at the top of the vagina that would represent the G spot. Vaginal contractions would trigger at the time of vaginal penetration and copulation. Histologically, the cells that make up a “pacemaker” center work synchronously through electrical interactions between the cells.

In our study, the vaginal area of Hypereroticism (the H area) is located caudally (in the retropubic space) and cannot be a “pacemaker-type” center, because the H impulse (the erotic sensation) is guided from the H area by specialized vascular-nerve pathways with the clitoris, the most powerful erogenous support of the female.

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