The Mythical G-Spot: Past, Present and Future

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Summary - The so-called point Gräfenberg popularly known as "G-spot" corresponds to a vaginal area 1-2 cm wide, behind the pubis in intimate relationship with the anterior vaginal wall and around the urethra (complex clitoral) that when the woman is aroused becomes more sensitive than the rest of the vagina. Some women report that it is an erogenous area which, once stimulated, can lead to strong sexual arousal, intense orgasms and female ejaculation. Although the G-spot has been studied since the 40s, disagreement persists regarding the translation, localization and its existence as a distinct structure.

Objective: Understand the operation and establish the anatomical points where the point G from embryology to adulthood.

Methodology: A literature search in the electronic databases PubMed, Ovid, Elsevier, Interscience, EBSCO, Scopus, SciELO was performed.

Results: descriptive articles and observational studies were reviewed which showed a significant number of patients.

Conclusion: Sexual pleasure is a right we all have, and women must find a way to feel or experience orgasm as a possible experience of their sexuality, which necessitates effective stimulation.

Keywords: G Spot; vaginal anatomy; clitoris; skene’s glands.

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I. INTRODUCTION

In our opinion from the anatomical point of view, the “G-Spot” does not exist, as there is a separate anatomical unit, but neither can deny from the embryological point of view. In my experience I agree and acknowledge that many women who defend and swear they have it, unfortunately, science has not been able to locate it.

There are few studies that different scientists have used in finding the controversial “G-Spot”: (Biopsies, surveys, scans, scans, ultrasounds, etc.) to locate the very controversial “G-spot”.

It is called "G-spot" to a vaginal area 1-2 cm wide, located behind the pubic bone in the front of the vaginal wall and around the urethra about 3-5 cm from the outside of the vagina between the pubic bone and the cervix\(^1\), which is energized when the woman becomes more sensitive than the rest of the vagina. This region is named after the German gynecologist Ernst Gräfenberg Dr., which based on the observations of women during orgasm, in 1953 published an important article entitled "The role of urethra in female orgasm/ The role of the urethra in female orgasm": there described and suggested the existence of an erotic area 1-2 inches inside the vagina orgasms induced by direct mechanical stimulation\(^2\). However, it was until 1980, when the Ladas, Whipple and Perry doctors- which he guided by the findings reported in this article, which rediscovered the vaginal area and chose to name it as an area “G-spot”\(^3\). Figure 1.

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exist at certain points in the other of the vaginal wall. Other ultrasound studies reported evidence that women who experience vaginal orgasms have thicker than those who do not have\(^6\), which leads me to speculate that there may be a functional correlation between the thickness of urethrovaginal space or “dot-space urethrovaginal G” and the ability to experience vaginal orgasm, and thus explain the importance, - to achieve orgasms -the region that would correspond to the “G-spot”. In other studies involving the use of MRIs, the stimulation of the clitoris, the vagina and cervix lit different areas of the brain, leading to the conclusion that each part or structure of these generates a different reaction in the body. Which suggests that the “G-Spot” can be a whole area of the anterior vaginal wall, rather than a point in itself. What gives the scientific basis to suggest that the whole of: anterior vaginal wall, clitoris and urethra form a team that could be called clitoral complex\(^7\), complex to participate and be responsible for generating all the fun, and that simply stimulate anywhere in this area would result in infinity female pleasure, because it would be the location of female sexual activity, analogous to the penis in men, ie the correct anatomical term should be \(^7\) invaginated female penis. Figure 2.

Publications are many, for or against, but the truth is there is no anatomical ultrasound images or pictures of “G-Spot” and the female prostate lacks an anatomical structure that can cause an orgasm\(^8\),\(^9\). However, vaginal penetration causes close contact between the inner clitoris and the anterior wall of the vagina, which could explain this phenomenon.

It is through this review I want to make my opinion of why some women might have and others do not much discussed area or “G-spot”, without being so blunt and absolutist in emphasis that does not exist, as if it was recorded some articles that there is no “G-spot", but if I clear that the “G-spot” does not exist as the magic button\(^10\), which many believe, the direct contact generates more pleasure, and emphasized that from the point of Embryologically has everything to be an area of the vaginal wall more nervous input and therefore more sensitive than the rest of the vagina, and it is obvious that the anterior wall of the vagina is an active organ that transmits during intercourse, the mechanical effect of the thrust of the penis into the vagina to the clitoris, through continuum and stretch the ligaments that are inserted around its base and the vestibular bulbs, which would theoretically the basis science of its existence.

II. EMBRYOLOGY FEMALE GENITAL APPARATUS

The external genitalia are generated at the caudal end of the embryo by successive changes in the cloaca, which is divided into the urogenital sinus anteriorly and the anorectal canal behind: to the 5th and 6th week the caudal end of the embryo is blocked by the cloacal membrane, and in the 7th week on your front end the genital tubercle, and each side of the anteroposterior urogenital folds, and out of these, or labioscrotal genital swelling.\(^11\)

In the absence of production of AMH, to the 8th, 9th, 10th and 11th week paramesonephric ducts or Müller (stimulated by maternal estrogens and placental) reach the pelvis of the embryo, where they cross in front of the mesonephric ducts or Wolf toward and juxtaposed\(^12,13\), each other, without merging further, and

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as is the utero-vaginal canal, which derive from the tube, uterus and upper vagina. The utero-vaginal canal begins to surround fused muscle tissue, which differs from the surrounding mesenchyme, this muscle tissue grows from the bottom up, uterus, vaginal encompassing the vertical portion of the duct to form the body of the uterus, and finally the background.14 Figure 3.

The lower portion of the blind mullerian bind urogenital sinus Müller tuber, and urogenital sinus wall contact tuber Müller, grows towards the forming senovaginales vaginal bulb constituting sheet, which is and lengthens the distance between the uterus and the urogenital sinus, and the same tissue proliferates mesonephricuterovaginal lower end of duct, increasing the length of the vagina. In the 11th week the vagina is channeled and flows just behind the urethra. At the caudal end of the uterus and vagina in the upper portion, emit about cervical extension by way of "wings" that surround it and form the vaginal sac or vaginal vault. The lower end is closed by the hymen, which separates the lobby; ahead, the vagina15, the urethra is removed, and behind the rectum, mesodermal septa. Thus, the upper portion of the vagina is Paramesonephricus origin, and lower, of the urogenital sinus16.

The pelvic mesenchyme lying in front of the rectum into the cloacal membrane, separating it into an anterior or urogenital portion and a posterior or anal. The urogenital diaphragm closes below the urogenital groove between the urogenital folds (membranous bladder and urethra) and the anal membrane closes the year, and the end of urogenital septum form the perineal body. In the 8th week the urogenital sinus communicates with the outside, and outputs the anus outside the rectum. In the 9th week the genital tubercle becomes the phallic part constituting the clitoris. In the 10th week the urethra and vagina open into the urogenital sinus which continues to lobby on its lower portion. The lobby is framed laterally by the labia minora and labioscrotal swellings become the labia majora17.

In short, the formation of the external genitalia originates from the same structures for both sexes: the urogenital sinus form, in women, the lower two-thirds of the vagina and urethra, the elongation of genital tubercle formed in women, the clitoris and the urethral folds do not fuse, forming the labia minora, genital prominences, in women, the labia18.

The epithelium of the female urethra is of endodermal origin, while the connective tissue that surrounds muscle derived from the splanchnic mesoderm sheet, and towards the end of the first quarter, the epithelium of the prostatic urethra begins to proliferate and emerge several outgrowths that are introduced into the surrounding mesenchyme, and the cranial portion gives rise to the urethral and paraurethral (rudimentary homologues of the prostate) glands, the largest being the Skene's glands, which empty into the distal third of the urethra or introitus19,20.
pubic symphysis, and is it covered by hair to its junction with the abdominal wall\textsuperscript{21}.

\textit{b) Vulva}

The set of external genital structures, and defined as localized in the anterior perineal triangle, bounded by the above mons, perineum later the inguinal folds laterally and medially hymenal ring area\textsuperscript{22}. It is covered except the lobby area, stratified squamous epithelium and keratinized\textsuperscript{23}.

The whole vulva includes the mons pubis, labia majora, minors, the inter-labial groove, the clitoris, the clitoral hood or prepuce, lobby or vaginal introitus, urethral meatus, the greater vestibular glands (Bartholin) in the posterior third of the lobby and lower (Skene) on either side of the urethral meatus\textsuperscript{24}. Figure 4.

The blood supply comes from internal and external pudendal arteries. The anterior and superior regions are innervated by the ilioinguinal and genitofemoral (lumbar plexus) nerve and the rest by the pudendal nerve\textsuperscript{25}.

\textit{c) Labia}

Fibroadiposos are a couple of folds of skin that extend from the mons pubis down and backward to join in the line ahead of the year at the level of the rear fork, they are covered with keratinized stratified squamous epithelium. Include terminal extension of the round ligament. The skin is covered with sparse hair sideways and are rich in sebaceous glands, apocrine and eccrine and contain abundant adipose tissue and muscle liso\textsuperscript{26,27}.

\textit{d) Labia minora or nymphs}

Two mucosal folds that lie between the labia majora, with merging from behind, and are separated into two folds at the approach to the clitoris ahead. They are covered by squamous epithelium nonkeratinized except for a thin layer cornea at its side edges, beneath the epithelium richly vascularized and neat elastic fibers in connective tissue is found, and in the medial portions consist of erectile spongy tissue traversed by beams collagen, associated with a complex network of elastic fibers, not containing hair follicles and sebaceous glands present few. The latest folds join to form the prepuce or clitoral hood. Subsequent folds form the frenulum of the clitoris. They are covered by hairless skin, overlying fibroelasticstroma rich in nervous and vascular elements. The area is in the rear parts of the labia minora is the vestibule of the vagina\textsuperscript{28,29}.

\textit{e) Vagina}

The vagina is a tubular structure, collapsed inside, extending from the lobby to the vulvar cervix measurement with 9 cm + / - 3, located posterior to the urethra and bladder and above the rectum, the wall anterior and posterior are brought into direct contact with each other, except in the 1/3 upper surrounding the cervix, and uterus with respect to an angle of 90°\textsuperscript{30,31}.

The blood supply is the supply the vaginal artery and branches of the uterine artery, middle rectal and internal pudendal. The veins around the vagina forming uterine, rectal and pudendal veins that drain to the internal iliac vein\textsuperscript{32}.

The innervation is supplied by the uterovaginal plexus (inferior hypogastric plexus) in virtually its entire course, but mainly in the upper middle portion and the lower portion measured by the pudendal nerve (sacral plexus)\textsuperscript{33}, which also distributes motor and sensory branches to the region perineal and external genitalia. Innervates the external sphincter muscles of the anus and urethra, and ischiocavernosusbulboesponjosos and part of the levatorani, in addition to the skin in this region, as well as the labia and clitoris\textsuperscript{34}.

The vaginal wall is made of three layers: mucous, muscular and adventitia\textsuperscript{35}. The mucosa has a rough manner and form small folds of 2 to 5 mm thick according to the hormonal stimulation time (transverse folds) and is lined by stratified squamous nonkeratinized epithelium, enriched Glycogen and receivers intranuclear for sex steroids\textsuperscript{36}. Beneath the epithelium is


\textsuperscript{30}Panamericana; 2003.


the lamina propria, which is the connective tissue-rich elastic fibers and nerves, with a few blood vessels.

The muscle layer is formed by smooth muscle fibers that are arranged to circulate in the area attached to the mucosa and longitudinally on the outside, and some of these longitudinal fibers pass cardinal ligaments form. Adventitia consists vascularized connective tissue with copious nerves and venous and lymphaticplexuses.37,38

f) Vaginal orifice

The vaginal opening is surrounded by the hymen. On each side of the duct opening lobby of the greater vestibular gland or Bartholin is located.

g) Vaginal or vulvar vestibule

It is the portion of the vulva that is located between the labia minora (from the outer surface of the body), limited by the clitoris anteriorly and the posteriorly by the line of Hart, located in the medial portion of the older lips.39 The mucosa of the labia is similar to the vagina and equally enriched glycogen mucosa, and that is glucogenic epithelium with transitional epithelium of the urethra meatus and the epithelium of the excretory ducts of the greater vestibular glands minor and paraurethral.40

h) Hymen

Tissue is a mucous-membrane partially closing the vaginal introitus, vagina separating the vulva loose; connective tissue composed limited by stratified squamous epithelium without stratum corneum in both vaginal and buccal surface.

The hymen is a membranous remnant of the union between the senovaginales bulbs and the urogenital sinus, and drilling during fetal life to make a connection between the vagina and perineum.42

i) Glands

Skene’s glands are the two largest paraurethral ducts that empty into the female urethra, prostate rudimentary counterparts, are bilateral and secrete mucus material with sexual stimulation, used to lubricate the urethral meatus during intercourse. They are responsible for female ejaculation.

Skene’s glands are constituted by a pseudostratified columnar epithelium secreting mucosa and drain into ducts lined by transitional epithelium that lead to the sides of the urethral meatus, in number from two to ten.

Bartholin’s glands or greater vestibular glands are two tubulobuccal secretory glands, located on each side of the opening of the vagina, in a clockwise position, at four and eight hours. Secrete a mucoid fluid with sexual stimulation, which helps lubricate the labia during intercourse. Originate from the urogenital sinus and are homologous to the bulbourethral glands in males. Its acini are lined by columnar epithelium mucipar. The ducts that drain the gland are lined by columnar epithelium in the beginning, then by epithelium transitional type to finish by squamous-type epithelium at its end and outlet of the posterolateral portion of the lobby, to the inner and posterior surface of the lips and paraurethral.49

j) Clitoris

The clitoris is an erectile organ of 2-3 cms in length at its outer major axis, which is located under the urogenital diaphragm, in front of the symphys pubis and the anterior perineal region in contact with the pubic rami. Is formed by two arcs, right and left, (with a length 12 to 15 cm) that was merged into midline, causing a 90 degrees forward, forming a sensitive rounded tuber (glands of 3 to 4 mm wide and 4-5 mm long: its unique demonstration outside), being part of the vulva, whose roots are hidden below the vulva, and two erectile vestibular bulbs, coated by ischiocavernosus muscles around the sidewalls of the vagina. Histologically enriched with many sensory receptors, and subject to the pubis by the suspensory ligament. The pillars contain similar penile corpora cavernosa, cavernous veins surrounded by longitudinal muscular smooth muscle and small arteries in the central portion of the erectile tissue. Tunica albuginea is one, outside of this there is loose connective tissue with abundant nerves in the periphery of the columns. The clitoral glans is covered by squamous epithelium which is continuous with the vestibular. In the clitoris are not glands or papillae, but a large number of free nerve endings and...
countless corpuscles Pacinian and Krause are located (between 8 and 10 thousand nerve endings) as it is supplied by one of the three terminal branches of the nerve pudendal, the dorsal nerve of the clitoris\textsuperscript{50,51}.

**Figure 4**: Structural vulvar

k) Clitoral complex: complex vagina, clitoris and urethra

The distal vagina has different properties than the proximal vagina, reflecting their different embryological origins urogenital sinus and Müllerian duct, there is also variation in the structure of the walls, since the side walls are much different from the rear wall, and naturally prior\textsuperscript{52}.

The distal vagina is interrelated with the clitoris, so I doubt the two being separated as sexually functional complex structures, but from an anatomical point of view, on the side of the anterior vaginal wall (the mucosa) depth is only clitoris, so I dare say that there is no anatomical relationship between the two, but if you must have an important sensory functional relationship between the two, knowing their embryological origin.

The anterior vaginal wall is separated from the posterior urethral wall by urethro vaginal septum, with a thickness of 10 to 12 mm, through the periurethral fascia\textsuperscript{53,54}, tissue comprising fibro and a large number of blood vessels, glands, fibers muscle and nerve endings, which may explain its importance in sexuality, and not in vain spongiosum of the female urethra has been reported in anatomy books\textsuperscript{55}, and so much Grafenberg, in 1950, described the analogy female to male urethra, describing seems to be surrounded by erectile tissue like the corpora cavernosa\textsuperscript{56}.

The urethral meatus and the distal urethra are surrounded by the erectile tissue of the vestibular bulbs of the clitoris\textsuperscript{57}, so Dr. Grafenberg described an erogenous zone located on the anterior wall of the vagina and subsequent studies have correlated the focus of female orgasmic sensitivity are related to the external urethral sphincter\textsuperscript{58}, which forces me to think that the urethra anatomically is surrounded by the clitoris to a varying degree, which may explain its major component in sexuality, knowing what innervated richly out the clitoris, and then maybe take importance nacientemente naming point U\textsuperscript{59}, present in some women.

The “G-spot” of Ladas, Whipple and Perry doctors, does not correspond to the external urethral sphincter, but the intra-urethral glands, and that stimulation of the pelvic nerve can also occur with stimulation area “G-spot”, which correspond to the area of the female prostate gland, which would explain the reports of female ejaculation and orgasm through stimulation of the urethra, a phenomenon that is present in some women\textsuperscript{60}.

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IV. Conclusions

Sexual pleasure is a right we all have, and women must find a way to feel or experience orgasm as a possible experience of their sexuality, which necessitates effective stimulation.

Scientists and sexologists should define how relevant is whether or not the controversial “G-spot”, but in my opinion, whether or not there is irrelevant. The woman who you found should use it and enjoy at will, and those that are not found, I invite you to try not to stop, not just look into the vagina, for it is in this search that can get to know enough to know what area or corner of your body, which is located its point of maximum pleasure.

Figure 5: Vagina Complex, clitoris and urethra