

MASTURBATION- BETWEEN NORMALITY AND PATHOLOGY (FROM PUBERTY TO ADULTHOOD)-PART II

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Abstract

Performing manual stimulation maneuvers on the genitals by an individual, regardless of sex, in order to obtain a sexual erotic state, often completed by ejaculation and orgasm, constitutes the act of masturbation.

During puberty, masturbation is not a pathological, perverse act. At puberty, neurohormonal transformations occur, that are essential for somatic and mental development; this stage continues the biological evolution to adulthood, according to genetic programming. The instinct of “species conservation” exists in both unicellular organisms and humans, in which procreation perpetuates the human species.

Keywords:

biological evolution, procreation, erectile-erogenous structures, B-estradiol, cellulars receptors

Introduction:

At puberty, manual touching of the genitals and of the surrounding areas causes the erection of the vulva and penis, in order to define the beginning of active developmental processes during somatic maturation, brain included. Obviously, touching the genitals for the purpose of local hygiene does not constitute masturbation.

In this context, the tissue surfaces, especially those of the genitals, due to the presence of a large number of tactile receptors and of specialized erectile-erogenous structures, that are hormonally sensitized at puberty, cause manifestations of sexuality, according to age, including masturbation. This is why, during puberty, masturbation appears as a normality in the physiological evolution of the human body.

Puberty occurs in girls at the age of 11-14 years (average at 13 years), through complex changes in the human body, in the evolutionary cycle. The ovaries begin to develop at the age of 8 by increasing the number of follicles, process that intensifies at 11-12 years and completes at 18-19 years; the uterus grows after the age of 12 to 18 years, and the vagina is populated with bacilli, respectively basophilic cells are replaced by acidophilic cells.

Menarche is preceded by leukorrhea, and the early menstrual cycles are anovulatory. The vulva changes its position, becoming horizontal, thus being prepared for the peno-vaginal intercourse. The labiae and the clitoris develop, and the tactile receptors and specialized erectile-erogenous formations, hormonally sensitive, will determine the girl's interest, at first for her own stimulating local

manual maneuvers, which determine her pleasure and interest in touching and masturbating.

Menarche and the monthly menstrual cycle appear at the age of 11-15, with a series of changes specific to puberty. The monthly values of growth and decrease of gonadotropic hormones (FSH, LH) increase the synthesis of ovarian hormones (estrogen and progesterone), with specific effects on both female genitals and secondary female sexual characteristics (mammary glands, axillary and pubic hair, etc.).

The sensual forms of the female and male body, 90-95% received by the optical analyzer, attract the pubescent, determining their state of arousal and erection, context in which, to eliminate the accumulated sperm fluid, they will resort to self-masturbation.

Estrogen, through β -estradiol, estrone and estriol, will develop most secondary sexual characteristics of adolescence, and progesterone will prepare the uterus for pregnancy and breastfeeding for breastfeeding, all factors of sexual stimulation in relation to the stages of development of the individual, cause of masturbation or peno-vaginal intercourse (Guyton).

If in childhood the estrogen secretion is very low, at puberty, under the influence of pituitary gonadotropes, it increases more than 20 times, a context in which the female genitals (internal and external) from pubertal structure and appearance will take the form and adult structure, in which the nuclei of cellular receptors sensitized by specific hormones determine erection and libido, which will be completed by masturbation or by peno-vaginal intercourse.

Estrogens inhibit the activity of osteoclasts, thus stimulating bone growth in height and helping to define the sensual shapes of the sexual partner.

The vulvar erectile tissue is somewhat identical to that of the penis. The erectile organs of the vulva and penis, through their structure and functionality, participate directly in determining the state of arousal and of erection, necessary for peno-vaginal sexual intercourse or masturbation.

The vestibular bulbs, especially through their posterior extremities (that are more voluminous), expand during erection, thus participating in the determination of orgasm together with the constrictor muscle of the vagina. The erectile tissue of the vestibular bulbs is connected to the vulvar erectile organs: clitoris, inner face of the labiae and urethro-vaginal tissue, that corroborate in the formation of the Hypereroticism Area ("H" Area), located retropubically, on the antero-superior vaginal wall. (Nițescu Vasile-[Fig.1a,b](#))



Fig.1a



Fig.1b

Fig.1a,b The Hypereroticism Area ("H" Area), images from Treaty of Clinical Sexology

In women, the bulbar venous plexus anastomoses with the veins of the clitoris. In the anterior region there is a small venous plexus located between the vestibular bulbs and the clitoral gland called intermediate portion- "pars intermedia", after Kobelt ([Fig.2](#)).

In boys, puberty occurs at the age of 13-16 (on average at 15 years). The testicle grows slowly up to 10 years through the development of seminiferous tubules, and at 10-11 years their diameter increases. The first mitoses with the formation of spermatocytes and then spermatids appear in the testicular germ cells. Spermatogenesis itself begins at the age of 15-16.

Consistent with the development of the testicles, the scrotum also evolves and pigments at 11-12 years of age. The penis, which begins to grow at age 11, reaches adult size at age 18-19.

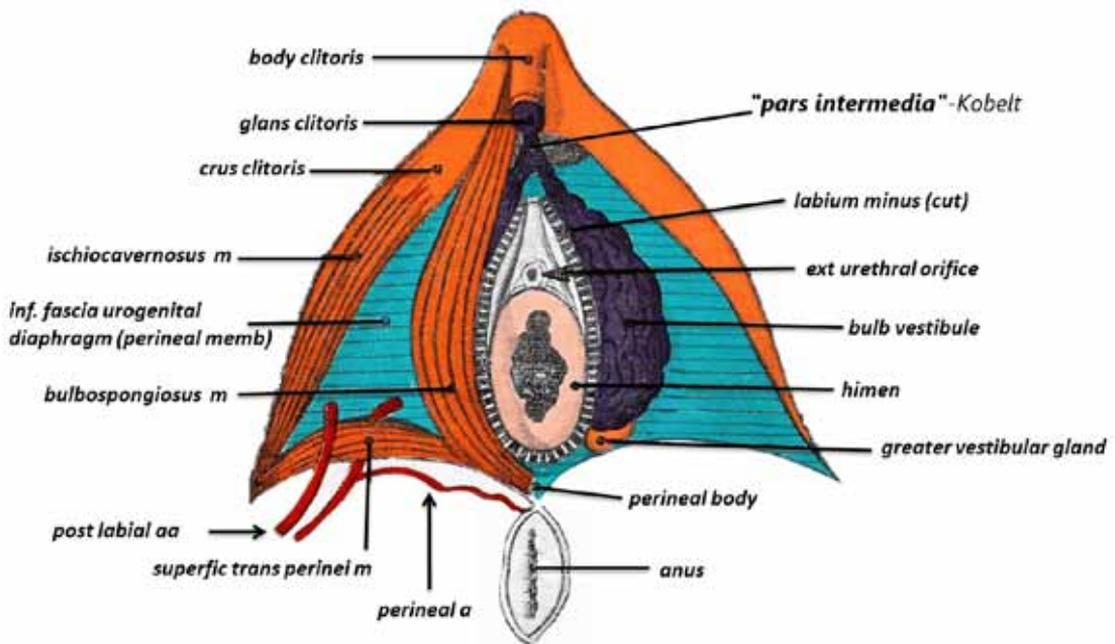


Fig.2 Vestibular bulbs, clitoral gland, intermediate portion

-image from Journal of Clinical Sexology Vol.3, No3, 2020

The prostate and seminal vesicles become functional at the age of 15-16, when the first emission of seminal fluid appears, which marks the pubertal period and also the appearance of male secondary sexual characters.

From a neuropsychic point of view, sexual maturation determines a hyperexcitability of the nervous system, with a predominance of cortical arousal, mental and neurovegetative lability. The sexual instinct is "awakened", stronger in boys, and the attraction to the sensuality of the opposite sex appears, respectively the first love appears according to the psycho-sexual determinism, to which corroborate the sex hormones, the type of nervous system and the social environment.

Luteinizing hormone (LH), secreted by the anterior pituitary gland, stimulates the testosterone secretion by testicular Leydig cells, and follicle-stimulating hormone (FSH) sti-

mulates testicular Sertoli cells. In the absence of FSH, the transformation of spermatids into sperms (i.e. the process of spermatogenesis) no longer occurs.

The glans penis is the source of most sensory nerve impulses that induce libido, respectively the initiation of sexual intercourse, due to the special system of nerve endings, sensitive and sensory, which transmit to the Central Nervous System the sensations that either masturbation or peno-vaginal intercourse produce on the glans. Exciting impulses can also come from areas adjacent to the base of the penis, such as the anal epithelium, scrotum, perineum, which also trigger and amplify sexual sensations.

An important role in determining the erection also has the elimination, during erotic night dreams, of the accumulated sperm fluid, a phenomenon that occurs at

puberty and is maintained in adulthood.

Erection is generated by parasympathetic impulses, the afferent nerve threads releasing nitric oxide, acetylcholine and VIP (Vasoactive Intestinal Polypeptide), which relaxe the penile arteries, trabecular networks of smooth muscle fibers in the erectile tissue of the corpora cavernosa and the spongious penile body, thus the degree of erection being directly proportional to the intensity of stimulation of the genitals and the psychological (cerebral) one.

Common vascular-nervous structures, especially those of the vulva (eg cavernous bulbs, vaginal area "H", clitoris), explain why the involvement of a vulvar segment or of the adjacent areas causes a state of arousal (erection) of the entire vulvar area.

The main estrogen hormone secreted by the ovaries is β -estradiol, with an 12 times stronger effect than estrone's and 80 times greater than estradiol's (Guyton). Estradiol and progesterone are steroid hormones synthesized in the ovaries from the cholesterol molecule.

Estrogens mainly develop the organs and the tissues involved in reproduction. If in childhood the amount of estrogen is very low, at puberty the hormones levels secreted under the influence of pituitary gonadotropes increases more than 20 times, in which context the genitals change from prepubertal to adult shape, with normal function, by increasing size several times, achieving the final physiological form, necessary for peno-vaginal intercourse, but also masturbation, in the absence of a sexual partner.

The effects of breast augmentation through the development of stromal tissue and the

deposition of adipose tissue, under the action of progesterone and prolactin, in puberty, will become one of the elements of attraction and excitability for schoolmates or boyfriends.

With the complex transformation of body shapes and structures from puberty to adulthood, each other's sensual sexual temptations begin to become more expressed, including through masturbation.

In this context, at first, the state of erotic tension, determined by physical proximity, does not aim to obtain a peno-vaginal sexual intercourse, but only to perform local manual maneuvers, including self-masturbation or heteromasturbation, a common situation in young people aged 15- 20 years.

The use of masturbation decreases until it disappears with advancing age, due to the difficulty of obtaining or the disappearance of the erection.

Discussions

Masturbation has also been called „mono-sexualism, autosexuality, onanism or sexual pleasure”, terms that explain only some of the forms of masturbation.

The peno-vaginal sexual intercourse, that is essential for the reproduction and perpetuation of the human species, is inscribed in the genetic code of each normal individual and is highlighted after the morpho-physiological maturation of the human body, in which normal masturbation has its well-defined role in the transition to peno-vaginal intercourse (for human procreation).

In adults, the state of sexual arousal completed by masturbation can also be determi-

ned by the male physical proximity, especially if he is in an erectile state, to a woman or by accidentally touching her breasts or buttocks. The female erotic state may be induced as a result of touching a certain preferred man.

Masturbation is practiced by both sexes (a maneuver that most men or women do at some moment in their lives), by all human races and social categories. In those without neuro-mental disorders it has a frequency of 92% (Kinsey), respectively 98% in men and 86% in women (Nițescu).

In adults, masturbation can be caused by an infantile fixation (they achieve their sexual life through this practice in a normal libido) or it can be the clinical expression of equivalences of epileptic seizures, the manifestations may remit spontaneously and without consequences.

Masturbation occurs at puberty, when, through specific maneuvers, the accumulated sperm fluid is eliminated, including through night pollution after erotic dreams, and in adulthood - by determining the state of erection, in the absence of a partner. This behavior has also been observed in female monkeys, which, when they are aroused and lack the male, resort to masturbation, even becoming their common practice (Stoica).

Masturbation is normal when it comes to removing accumulated sperm. However, it becomes pathological when used excessively, leading to progressive depletion of the body, in an anxious person, when done brutally, by manual compression, including penile edema (Fig.3a,b).

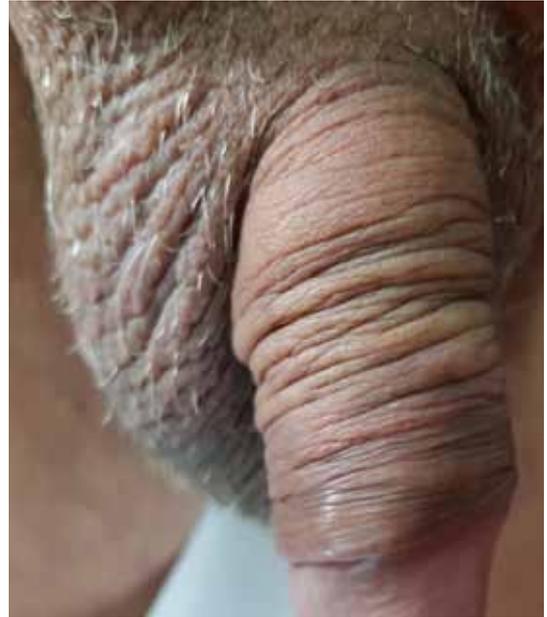


Fig.3a

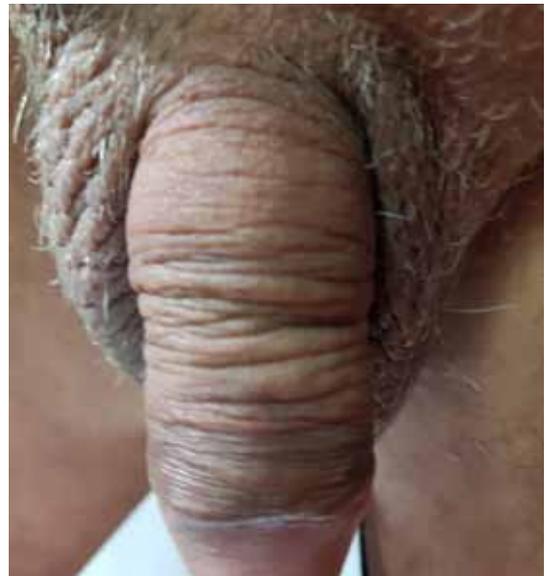


Fig.3b

Fig.3a,b Penile edema

Repeated touching of the genitals without ejaculation is often practiced by children with certain mental illnesses, anxiety, mental retardation, schizophrenics, in which this maneuver may be repeated more than 20 times daily, as an effect of mental disorders, but not masturbation per se.

In women, masturbation is caused by manual labial stimulation, of the vaginal introitus, of the vestibular bulbs, of the labia minora, and especially of the clitoris and of the vaginal area of hypereroticism. Manual actions on the labiae and on the clitoris, repetitively and excessively, causes their hypertrophy (Fig.4a,b,c,d,e,f).



Fig.4a



Fig.4b



Fig.4c



Fig.4d



Fig.4e



Fig.4f

Fig.4a,b,c,d,e,f Hypertrophy of the labia minora

Tactile maneuvers on the genitals may also cause, at this level, vulvo-vaginal infections, manual microbial contamination, erosions or abrasions.

Heteromasturbation, ie the maneuver performed to each other by sexual partners, increases their sexual arousal.

Prior to performing the masturbation, in order to increase the penile or vulvar erectile tone, foreign bodies of elongated or round shape are sometimes inserted into the urethra (which contains erogenous tissue) or into the vagina.

The erogenous zones of the genitals, especially those of the penis and vulva, with special structure and functionality, since puberty, develop a large number of tactile receptors and erectile-erogenous formations, which have growing sensitivity and ability to receive stimuli.

These structures will also have a specific representation in the cerebral cortex, contributing to the masturbation occurrence.

Self-masturbation, as an intermediate stage in the individual's evolution, prepares the complexity of the peno-vaginal intercourse, absolutely necessary for human reproduction (Nițescu).

The erogenous intensity is perceived differently by each individual, this explaining the diversity of sexual behavior at puberty and in adulthood (Rostand).

In the elderly, due to complex morpho-physiological changes, which appear in the process of biological involution, especially on the tactile receptors of erectile-erogenous formations level, whose sensitivity, respectively reception capacity, decreases as well as the specific representation in the cortex; also,

the penile and vulvar basal erectile tone diminishes, context in which the masturbation is scarce and eventually disappears (Nițescu). The sensitivity of erogenous zones is reduced not only due to deteriorating changes, but also due to degeneration of the nerve pathways, especially by demyelination.

Erotic sensitivity is higher in the genitals and in the cephalic extremity due to myelinated and encapsulated A β -type nerve fibers, which increase erectile tone and which, at puberty by masturbation, by stimulating the receptors of the genitals, generates pleasant sexual sensations, that are more common at ages between 15-20 years.

Masturbation is initially more frequent in girls, in which neuro-hormonal changes, through emancipation, awaken the sexual instinct earlier than in boys. Subsequently, due to the stronger sexual impulse due to testosterone, the frequency of masturbation becomes higher in boys.

The apparition of the desire to have sexual intercourse occurs at puberty, due to a central neurological effect, which activates the brain's erotic receptor elements.

Testosterone production in the male individual increases rapidly after the age of 10-13 years, under the influence of gonadotropic hormones. The testicles secrete testosterone in the highest amount of other androgens, such as dihydrotestosterone and androstenedione.

The beginning of sexual life depends on the intensity of the sexual impulse, the physical and mental maturation of the individual, the cultural level, the religion, the socio-economic conditions, the pornographic media or the limited access to contraceptives.

Modulation by sex hormones, especially by the androgens, of male behavior, which is more active and aggressive in approaching a possible female sexual partner (but within physiological limits, the behavior being under brain control) is done by hormonal action on the limbic system and nuclei in the hypothalamus, which control the secretion of pituitary gonadotropes.

The recurrence of masturbation may be imaginative, as a result of a virtual or visual sexual arousal, such as obscene images, erotic memories or feelings, in which the person of the opposite sex is missing. All these overload the nervous system, which, being stimulated in this manner repeatedly, may cause psychogenic sexual dysfunction.

By masturbation, the partner stands off the feeling of closeness and attraction and from normal sexual intercourse. Over time, mental disorders may occur, that reduce sexual potency, erectile tone, by removing the refractory period and depleting the nervous erectile centers.

Normal autoeroticism is performed especially in environments where sexual intercourse is forbidden and the individual, because of its structure, has sexual desire but not the possibility of achieving heterosexual intercourse. There are situations in which the woman does not want to have sex due to the fear that she will not be able to have a normal sex life or that this could lead to complications (sexually transmitted diseases or pregnancy). In men, there may be a fear of reduced sexual satisfaction, premature ejaculation and of sexual dysfunctions, especially in shy or inexperienced individuals who do not find a sexual partner.

Masturbation, as a normal intermediate stage of evolution, mediates the transition from puberty to adulthood, respectively to perform peno-vaginal intercourse, which generates human procreation, according to genetic programming. Masturbation cannot replace peno-vaginal intercourse, which is performed as an incomplete act in puberty or in adulthood.

Masturbation is also a physiological act of eliminating the semen accumulated in youngsters and in men, respectively of mental relaxation in women. The practice of self-masturbation decreases when peno-vaginal sexual activity actually begins.

In the elderly, complex degenerative changes, especially that of tactile receptors and of erectile-erogenous formations, whose sensitivity and ability to receive, as well as that of the cerebral cortex, reduce the basal erectile tone of the penis and vulva; in this context, in time, masturbation is less used and eventually not used.

Conclusions

The child does not have the responsibility and the discernment of the repeatedly touching his penis manually or performing its encapsulation and decapsulation, that are masturbation specific.

The child feels a special sensation when touching the genitals due to their surfaces which have a large number of tactile receptors and specialized formations, with high sensitivity and reception capacity.

The quality of mentation increases after the age of 12-14.

The simple manual touching of the genitals does not constitute masturbation.

Masturbation begins at puberty, when, in young people, increases the interest for their own person and image and for their physical appearance and clothing.

The masturbation is a practice necessary to remove the state of sexual tension, determined, at puberty, by the beginning of the activity of the gonads. The sperm elimination due to masturbation is a normal step in determining the occurrence of normal peno-vaginal sexual intercourse.

In male, both masturbation and peno-vaginal sexual intercourse are based on the existence of the penile erection. The degree of erection is generated by parasympathetic nerve impulses, whether it is physically (manually) or mentally (in the brain) generated.

The erogenous intensity is perceived differently by individuals, each with its own biological pattern, thus explaining the diversity of sexual behavior at puberty and in adulthood.

Masturbation does not produce a complete relaxation of erotic tension, accumulated due to the lack of sexual partner, respectively does not replace the mutual psychological experience. In women, sexual dysfunction of libido and orgasm may occur, which gradually causes frigidity, irritability, depression, low memory and intellect and physical asthenia.

In the elderly, the sensitivity of erogenous zones decreases not only due to deteriorating tissue alterations but also due to impaired sensitivity of the nerve transmission pathways, especially by demyelination.

Last but not least, premature sexual intercourse negatively influences the child's physical and mental development. Untimely attrition of youth is a phenomenon of biological aging with repercussions for mother and fetus; that is the reason why a 12-15 year old girl should not procreate, because she can't raise a child under normal conditions.

Conflict of interest

The author has no conflict of interest to declare.

References

1. A.Guyton & J.Hall *Tratat de Fiziologie a Omului*, Ed. Medicala Callisto, 2007, 1001-1008, ISBN(13) 978-973-87261-4-7.
2. Benson R., *Current obstetrics gynecology diagnosis and treatment*, 2nd edition, 26, 1978.
3. Berek & Novak: *Ginecologie*, Ed. Medicală Callisto, 116-118, 270, 287-292, 2015, ISBN -978-606-8043-15-9.
4. Gruber C.I., Tschugguel V., Schneeberger C., Huber J. C., *Production and actions of estrogens*, *N Engl J Med*. 2002 Jan 31;346(5):340-52. doi: 10.1056/NEJMra000471.
5. *Harrison's Principles of Internal Medicine*, 14th Edition, Vol.1, *Adolescent Health problems*, 30-36, 1998.
6. Nagy E., Hollody K., *Paroxysmal non-epileptic events in infancy: five cases with typical features*, *Epileptic Disord*. 2019 Oct 1;21(5):458-462. doi: 10.1684/epd.2019.1098.
7. Nilsson S., Mäkelä S., Treuter E., et al.: *Mechanism of estrogen action*, DOI: 10.1152/physrev.2001.81.4.1535.
8. Nițescu V, *Cavernous erectile system in women and the Hypereroticism Area (H Area) vol. 3 no.3*, 121- 126, DOI:10.37072/JCS.2020.03.03.
9. Nițescu V, Ramba N: *Decline of sexual function in men between physiological senescence and plurietiological hyposexuality- Part I*, *Journal of Clinical Sexology*, 71-73, Vol.3, No.2, April- June 2020, DOI:10.37072/JCS.2020.02.03, ISSN Online 2668-0394 .
10. Nițescu V, *Decline of sexual function in men between physiological senescence and plurietiological hyposexuality- Part II*, 85-100, Vol.3, No.3 July- September 2020, DOI:10.37072/JCS.2020.03.01
11. Nițescu V, *Treaty of Clinical Sexology*, The Publishing House of the Romanian Academy, 257-260, 2018.
12. Rostard J., *Ecrits sur l'hérédité*, Seghers, Paris, 163, 1968- citat de Maximilian C. în *Aventura Geneticii*, Ed. Albatros, 33, 1978.
13. Stoica T., *Sexologie*, Ed.a -2-a, Ed. Medicală, 205-2013, București, 1975.