

CORRESPONDENCE-POINTS OF VIEW

Question No.1: Where can the dryness of the vaginal mucosa and the side effects caused by the onset of menopause be classified as a pathology?

Answer given by: Vasile NIȚESCU Associate Univ. Prof. Dr. ,

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In the biological involution of the genitals, according to genetic programming.

After the onset of menopause, vaginal morphological changes secondary to estrogen deficiency are added to the complex elements caused by the biological involution of the genitals according to age.

This is why the dryness of the vaginal mucosa makes it difficult to penetrate the penis due to the lack of vulvo-vaginal lubrication and intercourse becomes painful.

Also, the sensitivity of the vulvo-vaginal cellular receptors decreases, respectively the degree of vaginal excitability is reduced, obtaining orgasm becoming more difficult.

American gynecologists Berek and Novak use the term “urogenital atrophy“, adding, in addition to dyspareunia and vaginal pruritus, the urinary changes caused by prolapse of the anterior vaginal wall, accompanied by urethro-cystocele, and prolapse of the posterior vaginal wall, which causes the appearance of rectocele, with gas incontinence and sometimes feces incontinence (generally when feces have low consistency).

All the mentioned changes reduce the desire for sexual practice with menopause and aging, respectively, and libido, arousal and orgasm become more difficult, depreciating the quality of life, compared to the young woman.

According to Berek and Novak, in 60% of women sexual problems worsen with age, and in the remaining 40% the desire for non-genital sexual practices increases (3).

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According to Rosemary Basson and David A. Baram (3), immunohistochemistry studies have shown the presence of nerve threads in the labial, clitoris and genital skin, threads that contain nitric oxide as well as cavernous nerves.

During the manual excitation of the skin receptors or due to psychic factors, appears the orgasmic platform.

Cellular receptors in the genitals have much lower perceptual sensitivity in menopausal women, precisely by decreasing the sensitivity of local receptors and brain receptors, due to the process of biological involution, thus reducing the importance of sexosteroids, as in men.

According to the above-mentioned authors, the parasympathetic nerves also release nitric oxide and vasoactive intestinal polypeptide (VIP) which causes local vasodilation (1,2).

Acetylcholine blocks vasoconstrictor mechanisms, stimulating the release of nitric oxide from epithelia.

Nitric oxide is the main neurotransmitter responsible for producing vulvar vasocongestion as does the VIP.

Currently, in the view of endocrinologists, menopausal genital atrophy should be approached from two perspectives:

- The first, that of the physiological aging of tissues
- Second, due to the dramatic loss of ovarian follicle deposit, resulting in a significant decrease in circulating estradiol.

At menopause, the main circulating hormone is estrone, whose tissular effect is 12 times weaker than that of estradiol.

Estrone results from the aromatization of ovarian and adrenal androstenedione, synthesis that occurs predominantly in adipose tissue.

Vaginal discomfort is represented by local dryness, pain during sexual intercourse, local stenosis, loss of parietal roughness, all due to changes in vaginal epithelium and vascularisation.

Alterations in vaginal estrogen receptor cells also contribute to these menopausal symptoms.

In this complex context, the vaginal mucosa becomes brittle, loses collagen, its fatty tissue disappears and is no longer able to retain water, thus dehydrating.

At the same time, the vaginal epithelium does not mature in the absence of estrogen.

The effect of estradiol on inducing cell proliferation is known, a process which, at puberty, transforms existing cuboidal vaginal cells of prepuberty into stratified cells, which are more resistant to infection and trauma.

The vaginal flora also modifies, the pH becomes alkaline, these phenomena favoring local infections.

Estrogen therapy, which may be administered either orally or topically, can be a solution to improve the above-mentioned vaginal changes.

Nonetheless, sexual activity stimulates the vascularization of the vagina by acting synergistically with hormone replacement therapy with estrogens.

A variant of hormonal treatment is Tibolone, a molecule with a selective estrogenic regulatory role, having estrogenic and androgenic activity, with beneficial effects on the brain, bone, vagina and considered to avoid adverse effects on the breast and endometrial level.

Tibolone stimulates the vascularization of the vagina, increases the libido, respectively the sexual intercourse, thus improving the quality of life of menopausal woman.

Bibliography:

1. Ottesen B., Pedersen B., Neilsen J. et al., Vasoactive intestinal polypeptide, 8, 797- 800, 1987.
2. Creighton SM., Crouch NS., Foxwell NA., et. al., Functional evidence for nitrergic neurotransmission in human clitoral corpus cavernosum: a case study. Int.J.Impot.Res. 16, 319- 321, 2004.
3. Berek and Novak's Gynecology 15th Edition, ISBN: 978-1451175561; 13, 39, 40, 270-320, 2014.
4. Nitescu Vasile: Decline of sexual function in men between physiological senescence and plurietiological hyposexuality- Part II DOI:10.37072/JCS.2020.03.01, Journal of Clinical Sexology, 85-101, Vol.3, No. 3, 2020.

Question No.2: How do you explain that in men over the age of 70, who have undergone a rectosigmoidectomy, the elimination of sperm is difficult, and after ejaculation nasal secretions and hiccups appear? Also, how do you explain, in these men, the change in smegma, in smell and quantity?

**Answer given by Associate Univ. Prof. Dr. Vasile NIȚESCU,
Univ. Prof. Dr. Mircea BEURAN**

Sperm is eliminated by repeated contractions of the perineal muscles, especially of the bulbous and ischio-cavernous muscles at each relaxation of the urethral striated sphincter.

The smooth sphincter of the urethra, located in the pre-prostatic urethral portion, does not allow the discharge of spermatic fluid into the bladder by contraction.

In this phase there is also appears the orgasm given by the contraction of the smooth muscles of the internal genitals and perineal muscles (bulbocavernous, ischiocavernous), which increase turgidity along the root of the corpora cavernosa of the penis, continuing on the lateral face of the corpora cavernosa.

Thus the lateral portion of the bulbocavernosus muscle functions as a constrictor of the root of the penis, with a role in erection, while the compressor muscle of the bulb participates in the

elimination by contraction of sperm or urine through the urethral bulb.

The contraction of the two muscles is accompanied by the contraction of the anal sphincter and the rest of the perineal muscles.

Erection, ejaculation, urination and defecation are anal reflexes, commanded by the sacral parasympathetic nervous system (1).

In people over 70, the ejaculation involves additional muscle groups such as the gluteal, abdominal and thoracic muscles.

After ejaculation, excessive nasal secretion (rhinorrhea) is due to stimulation of vagal reflexes, as well as hiccups that occur in the same circumstances.

Regarding the appearance, smell and amount of smegma: the foreskin to the glans looks like a mucosa, which, at the level of the coronary ditch, continues with the mucosa of the glans.

Tyson glands normally produce smegma of firm consistency and strong odor, due to the composition in organic acids.

Following the sectioning of the vascular elements in the pelvis, a semi-erection is often determined, as well as cellular structural changes of the coronary groove and glans, reducing the amount and consistency of the smegma, as well as the specific odor given by organic acids (1).

Bibliography:

1. Nitescu Vasile, Treaty of Clinical Sexology, The Publishing House of the Romanian Academy, 115-118, 2018.
2. Beuran Mircea, Preservation of sexual function in rectal surgery DOI:10.37072/JCS.2019.01.04, Journal of Clinical Sexology, Vol.2, No1, 25-31, 2019.

Question No.3: How do you explain pollakiuria, especially nocturnal, accentuated after partial rectosigmoidectomy?

Answer given by Univ. Prof. Dr. Mircea BEURAN, Alexandru RUNCANU Senior Specialist in Surgery

The bloating of the intestines presses on the bladder, removing its contents.

By sectioning the nerve fibers that innervate the bladder, there is a deficit of emptying of the bladder.

The miction frequency is higher, and, by the accumulation of urine in the bladder, the smooth urethro-bladder sphincter can no longer obstruct the drainage orifice.

In this context, the striated bladder sphincter is the only one that can retain the urine, but with difficulty, by contraction, a context in which the patient must urinate quickly, otherwise urinary incontinence occurs.

Bibliography:

1. Beuran Mircea, Preservation of sexual function in rectal surgery DOI:10.37072/JCS.2019.01.04, Journal of Clinical Sexology, Vol.2, No1, 25-31, 2019.
2. Runcanu Alexandru, Nițescu Valentin, Recto-sigmoid tumor pathology and disorders of normal sexual intercourse- Points of view DOI:10.37072/JCS.2020.03.02, Journal of Clinical Sexology, Vol.3, No3, 113-126, 2020.

Question No.4: Is there a link between recto-sigmoid cancer and cellular death?

**Answer given by Associate Univ. Prof. Dr. Vasile NIȚESCU,
Academician Dr. Leon DĂNĂILĂ Senior Specialist in Neurosurgery**

Malignant proliferation of the recto-sigmoid epithelium layers is the result of cellular genetic alteration, such as inactivation of p 53 genes, mutations of K-ras genes or other genes responsible for rapid apoptosis of cells (1).

The timing of cell differentiation and transformation may indicate the presence of the p 53 gene (2).

Apoptosis is rarer in tumors with increased malignancy, respectively depending on the degree of tumor differentiation (3).

The low apoptotic index shows a higher malignancy in recto-sigmoid cancer, so apoptosis expresses the degree of malignancy, there is a correlation between the products of genes that mediate apoptosis and cell proliferation, immunohistochemically proven by BCNA-2 protein correlated with PCNA and apoptotic index (4).

BCL-2: B Cell Lymphoma

PCNA:Proliferating Cell Nuclear Antigen

Bibliography:

1. Price Pat, Karol Sikora: Treatment of cancer, Third Edition Chapman and Hall Medical UK, 587-589, 1955.
2. Shaw P., Boverly R., Tardy S., et al.:Induction of apoptosis by wild, type p53 in a human colon tumor- derived cell line, Proc. Natl. Acad. Sci , USA, 89,4495-4499,1992.
3. Sugamura K., Makino M.,Kaibara N.: Apoptosis as prognostic factor in colorectal carcinoma, Surgery Today 28(2), 145-150, 1998.