

DECLINE OF SEXUAL FUNCTION IN MEN BETWEEN PHYSIOLOGICAL SENESCENCE AND PLURIETIOLOGICAL HYPOSEXUALITY - Part One-

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Summary

Male sexual desire is dependent on multiple factors, such as hormonal-testosterone secretion, neurological-Central Nervous System (CNS) integrity or neuroendocrine factors and sensitivity of brain receptors to androgen hormones located in the hypothalamic areas where steroid hormones feedback is closed, respectively the extrahypothalamic areas entangled in the libido, as well as the genetic support of the person, the age or the biological potential of the individual.

The eroticization of the brain occurs as a result of the excitation of the receptors in the genital areas and organs by imaginary factors or by the information of the erotic elements received by the analyzers and transmitted to the brain, which give the perception of female sensuality to the man. In the absence of brain eroticization, the exciting stimuli remain simple information, without erotic impulse, without erection and therefore, without finality.

As the deterioration of sexual potency in the elderly is not only hormonal in nature, the decline in sexual activity is conditioned by multiple and complex factors. Among other things, these factors cause a decrease in sexual desire-libido, respectively the sexual capacity of the individual, a context in which the treatment of sexual dysfunction of the elderly remains an insufficiently solved problem.

Keywords:

elderly, hyposexuality, libido, anaphrodisia, biological decline

Introduction

The importance of sex hormones in determining male libido is undeniable, testosterone and other testicular androgens having an essential role in inducing erotic status, penis erection and the onset of copulation. In adults, sexual desire is manifested bipolar, both cerebral and local, through the erection of the genitals, thus preparing them for sexual intercourse.

According to Guyton and Hall (1), libido and sexual potency are maintained in about 60% of normal men, aged between 40-50 years, and in about 40% of men over 60 years.

With high variability, the intensity of libido is obviously decreased, sometimes even absent in a male person over 70-75 years old. When the libido is low, it manifests itself in a time range 3-5 times longer than the normal variant, resulting in a reduction in the frequency of erection, so that the copulatory act becomes difficult or quite impossible to achieve, due to many causal factors. In this context, the elderly man also has also a reduced interest for a potential female partner, being less attracted to feminine physical qualities, which are now interpreted in various ways.

Initially, the deterioration of the sexual potency of the elderly man was explained by the decrease in testicular function, being known the experiment of Brown-Séguard, who self-administered, at the age of 72, testicular extracts from dogs and guinea pigs, obtaining "very good" immediate remedies for his hyposexuality, but with serious late-oncological side effects, resulting in his death from prostate cancer, a situation later clarified by scientists who reanalyzed the experiment.

However, the appearance of malignant cells in the prostate is stimulated by testosterone.

According to Guyton and Hall (1), the dimensional increase of the prostate is due to testosterone, which, immediately after being synthesized, enters the prostate cells, where it is transformed into dihydrotestosterone by the enzyme 5- α -reductase, in the cytoplasm binding to the receptor protein, then reaches in the cell nucleus, inducing DNA-RNA transcription, with an increase in both intracellular protein production and prostate cell count.

The anterior pituitary gland (adenohypophysis), through gonadotropic cells, secretes, throughout human life, the hormones named LH and FSH, glycoproteins that act on Leydig interstitial cells by activating the secondary messenger system of the cyclic adenosine-monophosphate (cAMP) that activates the enzymatic systems from target cells. The secretion of hormones as hormones of the adenohypophysis contributes to the maintenance of sexual function, through the presence of testosterone and spermatogenesis, throughout the adult life of the man.

Testosterone production in the male individual increases rapidly after the age of 10-13 years, under the stimulus of gonadotropic hormones; there are men whose sexual potency is maintained even after the age of 90 (a case of sexual activity at 94 years, (2,3) or, in Romania / in our country, a similar case, at 84 years old, after stimulation and selection of sperm).

The determination of the urge or desire to have a sexual act (sexual motivation) occurs at puberty through a central neurological effect, which activates the erotic receptor ele-

ments in the brain.

The testicles secrete testosterone in the highest amount compared to other androgens, such as dihydrotestosterone and androstenedione.

According to genetic programming, sex hormones are those that induce the occurrence of internal and external genitalia in male and female, mature them morpho-functionally, establishing sex differentiation and preparing the organs for sexual intercourse, necessary for human procreation, respectively the perpetuation of the species.

The modulation by sex hormones, especially by androgens, of male behavior, which is more active/ aggressive in approaching the possible female sexual partner, but within normal social limits, is done through the hormonal action on the limbic system. Last but not least, the nuclei of the hypothalamus are involved in determining sexual motivation, but controlling the secretion of pituitary gonadotropes, as evidenced by the proof that lesions in this area cause erectile dysfunction (2,4).

The serum level of sex hormones above a certain level is mandatory for the existence of sexual intercourse. However, sometimes these hormones are not sufficient to outline the normality of sexual intercourse in the case of the coexistence of psychocerebral factors, stress, negative sexual history, or in the case of drugs administration or if associated pathology is present or very low biological potential in the elderly; thus, the initiation and development of sexual intercourse is blocked .

References

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The second part of this article will appear in the next issue (Vol.3,No.3:July-September2020) and it contains: 1. Method; 2. Results; 3. Discussions; 4. Treatment; 5. Conclusions, Bibliography.