

Correspondence

Q: Why is it that women can have sexual intercourse even in the absence of excitation leading to it, while men cannot copulate without an erection, i.e. they cannot have a sperm release or orgasm? Which are the common excitation factors of the two partners?

A: Normal intercourse is the result of the excitation of the 2 individuals involved. Determining the erotic sensation, i.e. the libido, may be triggered also by seeing someone in a group, the touching of whom causes the erectile sensation in the genitalia and the desire to have sexual intercourse.

The state of sexual excitation of a person, be that a woman or a man, is the result of both exogenous, and endogenous factors.

The endogenous factors include the following:

- Pheromones, which cause the changes in a person's sexual conduct, i.e. the attraction of the partner.

In mammals, pheromones apparently result from the alteration of the fatty acids in the vagina by the action of the estrogen, which changes the vaginal PH. Lower quantities of pheromones also occur in the pre-ovulation period of the menstrual cycle (1,2).

- Psychological factors, such as the remembrance of highly erotic sexual images, the intimate, sensual dance, as part of which

being close to your partner causes an erogenous impulse; the lascivious movements of a woman and the touching of the more erotically charged parts (the thighs, the vulva, the penis), the viewing of sexual images of any form, particularly following a period of abstinence of the person in question, may result in an erectile tonus. Sexual attractiveness and bilateral receptiveness, the directing and activation of sexual motivation, i.e. the role neurohormones and cybernins in the brain play in this deterministic equation is still not completely elucidated.

- Low temperatures increase the secretion of TSH, thus stimulating prolactin secretion, which reduces dopamine, i.e. the desire to have intercourse.

- High temperatures stimulate erection, and have a positive effect on gonads.

- The state of excitation in individuals may be triggered by olfactory, auditory and visual analysers, as well as by the tactile receptors situated in the skin follicles and the cutaneous ridges with non-myelinated nervous fibres (the Merkel cells). Sexual excitation in men and women is transmitted by the tactile stimulation of tactile receptors in the erogenous zones, which causes the specific erotic state in the brain (1,3).

From receptors, impulses reach the erectile centre in the bone marrow of S2-S4, and

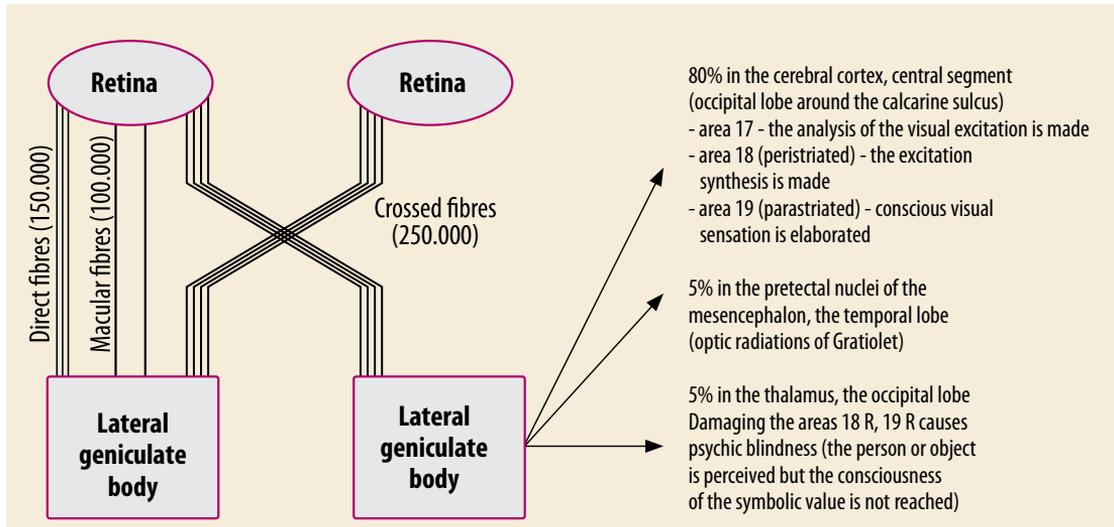


Figure 1 . The optic nerve (image from Treaty of Clinical Sexology)

from here, through the medullary ascending paths, reaching the postcentral gyrus in the parietal lobe. From the brain level, modifications in the genitalia occur through descending paths, such as the elongation and distension of the vagina, the congestion of the labia and the other erectile zones, the clitoris and vestibular bulbs, the H Zone, i.e. the swelling of the nipple and the erection of the penis.

In addition to the CNS, tactile receptors also engage the cardiovascular and respiratory apparatuses, and have a direct effect on sexual intercourse.

-Visual analysers – shapes conveying the sense of sensuality of men and women are perceived by the most important and most sophisticated analyser, which consists of over 500,000 fibres (Fig.1). It plays a major role in the occurrence and enhancing of the erogenous sensation, it being the trigger. It is well-known that the viewing of overdeveloped genitalia causes the young man/woman

to become aroused, not being aware that a really big penis will result in painful copulation for the woman, while very wide vaginas will reduce the man's pleasure during the intercourse. In this case, however, a man's hetero-masturbation causes the woman to become extremely aroused and have multiple orgasms. Humans receive 1.5% of data by touching, 3.5% by smelling, 11% by hearing, and 83% by seeing.

Sight provides humans with up to 90% of the total volume of data in the environment, and complex visual data are interpreted by one tenth of the cerebral cortex. The retina is an outgrowth of the brain, and light receptors are located on the retina. The image enters the pupil, goes past the transparent media of the eye, where sensitive cells (rods and cones) turn the light energy into a nervous influx, which is the electrochemical information in the brain. Data collected by a single cell of the eye are sent through the retinal-cerebral

fibres of the optic nerve to the cortex, and the image of the seen person is received and sent to the brain by this analyser.

The connection of the retina to the diencephalon (Hypothalamus), i.e. the Parasympathetic Vegetative Nervous System, explains the hyperexcitability of people living in warm geographic areas, including as far as their sexual behaviour is concerned.

II- I : Why is it that in the case of humans, over 90% of women carry an only child in their pregnancy, and only approximately 10 % of pregnancies are of multiple products of conception?

R: Only one spermatozoon penetrates the oocyte; following the penetration of the first spermatozoon, an influx of Calcium ions is triggered in the “pellucid zone” which release cortical granules in the perivitelline area, which prevents other spermatozoa from penetrating it (1).

References

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