High contraceptive failure rate of rhythm method: Possible involvement of pheromones

Dear Editor

The rhythm method of birth control is a type of natural family planning and one of the practiced methods of contraception used by many couples throughout the world. Couples who opt for contraception abstain from sex during the fertile period of women. The principle of this method is based on the knowledge of the life span of sperm, ovum and the time of ovulation. Though the approximate time of ovulation can be calculated based on the duration of women's last menstrual cycle, it is still subjected to individual variations. Hence the failure rates reported on this contraceptive method is comparatively higher than other methods available [1]. Pheromones are airborne chemical signals released by an organism into the environment which can affect the physiological and behavioral responses of other organisms of the same species. Researchers have identified the presence of pheromones in human sweat, urine and mucous secretions from the genitals [2,3]. McClintock effect is a classical example which once again proves the presence of human pheromones and its influence [4]. Olfactory mucosa is considered to be the major receptive area through which pheromones mediates their actions in humans [5]. Altered behavioral responses were studied in women who are exposed to male pheromones [6]. Pheromones also have strong influence in the modulation of ovulation in women [7]. Considering the above findings, we hypothesize that the presence of male pheromones, which will be released from the bodily secretions of male partner at the time of sexual intercourse might be a cause for reducing the ovulation time in the female partner thereby causing an early ovulation in her. This might result in high chances of fertilization. This pheromone interplay which alters the ovulation time in females could be one of the possible reasons of high failure rate observed in rhythm method of contraception. Just by knowing the time of ovulation, it may not be sufficient enough to prevent pregnancy. It must be always coupled with other tests for the detection of ovulation. How much or to what extend pheromones influence the human nervous system functioning is of considerable interest.

References


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Burn the bra (and men's tight underpants too): compromised 'chaotic' cooling by constricive clothing in the causation of testicular and breast cancers

Temperature regulation is cardinal to functional efficiency of the mammalian male gonad, the testis. Anatomically, to provide a cooler environ that better facilitates spermatogenesis; the testicles are housed outside the abdomen, in a separate sac that freely hangs below the pelvis.

A number of factors have been mooted that engender temperature regulation – one of the more widely accepted ones is the...
arrangement of a much coiled wrap around arrangement of venous channels that drain the organs. This anatomically odd arrangement forms the ‘pampiniform plexus’, which ascends into the pelvis to unite into a single testicular vein. The venous return of the gonad is, therefore, in parts, reticular and linear. This mesh-like venous arrangement sheathing the testicular artery is held by physiologists as one of the more vital factors cooling the testes. The returning venous blood, through its coiled arrangement, cools the descending arterial blood on its way to the target organ and increases its functional efficiency.

A second factor is the very displacement of the sac to below and away from the abdomen, directly exposing the scrotum to ambient room temperature, which is cooler than core body temperature. In our view, while these two factors play significant roles, neither is convincing enough to account dramatic lowering in testicular temperature; in a theory we had earlier mooted – of increase in total surface areas of testes, due to varying hanging heights of the two gonads in the same individual [1], may contribute to temperature lowering.

In this communication we propose that, the free suspension of the testicles in a loosely wrapped and hyper mobile sac, contributes to a random swing of the organs. The involuntary up, down, anterior, posterior, right or left, circular and elliptical motions that the hung scrotum exhibits, continues, induces a chaotic cooling system to operate. The non-volitional erratic excursions of the freely suspended sac, allows for better exposure and fanning of its contents to ambient environmental temperature, more effectively. In our opinion, the scrotum is a classic example of natural chaotic cooling system, and that this may well be the primary contributor to thermoregulatory mechanisms in the metabolically active gonad.

That the testicles are pulled up, involuntarily, if and when temperatures go below optimal levels, through a reflex muscular contraction: the retracted scrotum becomes less mobile and more fixed or, far less chaotic in movement. This control of erratic excursions and the subsequent inhibition of the chaotic cooling system, arrests continued cooling. The question is, could prolonged and continuous restrictive apparel lead to more serious complications than just azoospermia or oligospermia? Could limiting the chaotic cooling trigger malignant testicular tumors?

In our interpretation, the mammary gland in the mammalian female is also subject to similar ‘chaotic cooling system for temperature regulation. Apart from the testicles, the only other involuntarily freely mobile organ in the human is the mammary gland in the female. The breasts too, much like the scrotal sac, is by nature erratically and randomly mobile: Attempts to restrict its mobility through the common and widely prevalent use of brassieres, compromises its chaotic cooling ability, consequence of which is derangement of its temperature regulatory mechanisms.

We propose that sporting of such underclothes as one of the cardinal factors that engender breast neoplasms and malignancies. That the affliction is minimally recorded from under-developed Asian and African nations, where use such restricting apparel is practically non-existent, especially in non-metropolitan areas, lends credence to our hypotheses that ‘burning the bra’ as a gestural symbol for women’s liberation movement, may actually free the gender of much more lethal curse than perceived gender bias: it may protect them from breast cancer.

Reference


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