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Hormones behind pheromones: how to maintain sexual attraction in the aging couple?

Abstract of the lecture presented at the 2nd International Medical Congress on "Woman and Man. Reproductive and sexual health", Warsaw, Poland, April 13-14, 2012

Hormones behind pheromones: how to maintain sexual attraction in the aging couple?

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Background

Sexual attraction is the thrilling overture of sexual relationships. It is based on a complex mixture of different sensory signals. In the human species, visual signals are considered key for men, while kinaesthetic (smell, taste, touch) signals are key for the majority of women. Smell is considered leading in "macrosmatic" animals, i.e. with a prominent archaic part of the brain ("rhinencephalon"), while it was considered marginal in a microsmatic animal such as the human being. In the last three decades new interest has been devoted to investigate the role of smell in pre-determining sexual attraction in our species.

Aim

Analyse the role of smell in contributing to sexual attraction in our species and the role of sexual hormones in contributing to the "scent identity" in humans.

Method

Review of the literature and Author's clinical experience.

Results

Each human being has a unique "**smell identity**", determined by the complex pattern of chemical secretions produced by the skin and mucosal glands. The secretion of sebaceous and sweat glands is modulated by sexual hormones: its complex composition further contributes to the uniqueness of the **olfactory map** of each individual specifically enhanced by the type of pheromones it contains. **Pheromones** are secreted with a different pattern during the menstrual cycle and contribute to the "**scent of a woman**" typical of the fertile age. Their content gradually decreases after the menopause, unless a well tailored hormone replacement therapy (HRT) is initiated. Receptor of pheromones are as well modulated by sexual hormones and their concentration in the nasal and oral mucosa decreases with age, with a specific loss during and after the menopause. In parallel, the skin is our "**multisensory identity card**", not only for the unique design of the digital print. The skin-dress maintains life-long the written and visible memory of our life: its characteristics and texture reveal our age, our life-styles – particularly related to sun-exposure and skin care, but also quality of nutrients and stress levels –, the quality of our health, the presence or absence of sexual hormones. Skin and mucosal aging is perceived as a critical impairing factor for women's sexuality and sensuality: hormones loss, sun-aging and genetic factors all concur to the increase of wrinkles and loss of all skin and mucosal components: collagen, elastin, mucopolisaccharides, sebaceous secretion, including pheromones. Skin aging and pheromones loss may dramatically

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impact on subliminal sexual attractiveness. HRT may partially stimulate the secretion of pheromones, the sooner the better.

Conclusion

The presentation will discuss the role of appropriate HRT in reducing the negative effect of menopause on sexual attraction and help women and couple to maintain a stronger attractiveness, mediated also by pheromones. This further enhances the affective dynamics, neurobiologically linked to the reward system and pair bonding.