

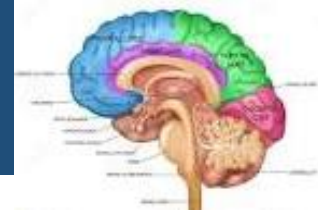
# Female Sexual Function and Dysfunctions



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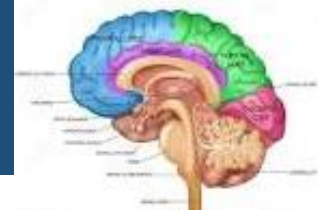


# Where does SEX live in brain



- ❑ Everywhere from top to bottom
- ❑ Sexual desire and arousal is controlled by the mesolimbic, nigrostriatal and hypothalamic dopamine system.
- ❑ Ventral tegmentum and substantia nigra – reward seeking behavior – dopamine
- ❑ Medial amygdala and bed nucleus of stria terminalis control sexual functioning in females; medial amygdala also controls sexual desire in males.

# Where does SEX live in brain cont.



- ❑ Stimulation of **hippocampus** causes erection in males and **septal region** causes Orgasm in females.
- ❑ The **brain stem**: Nucleus **para giganteo cellularis** which projects into the pelvic efferent neurons and inter neurons in **lumbosacral spinal cord**; plays role in orgasm in males and females.
- ❑ **Raphe nuclei, locus ceruleus** project to lumbosacral spinal cord.

# Hippocampus

- ❑ Hippocampus – memory storage; retrieval and language is filled with estrogen receptors.
- ❑ Estradiol E2 has numerous targets in hippocampus ---- play a role in cognition and affective behavior.
- ❑ Thus forming new memories, connecting emotions and senses.

# Relationship

- ❑ Attraction and attention
- ❑ Expression, Caring and sharing
- ❑ Truth
- ❑ Permission
- ❑ Consistence
- ❑ Retention of individuality
- ❑ Alcohol and use of other substances of abuse.

- ❑ Female sexual interest/ arousal disorder
- ❑ Female orgasmic disorder
- ❑ Genito-pelvic pain / penetration disorder
- ❑ Substance / medication induced sexual dysfunction
- ❑ Other specified sexual dysfunctions and unspecified sexual dysfunctions

# Desire

The natural longing that is excited by the enjoyment or the thought of any good and impels to action or effort, its continuance or possession: An eager wish to obtain and enjoy.

Sexual desire is considered the result of complex balance between inhibitory and excitatory pathways in the brain.

Dopamine, estrogen, progesterone and testosterone play excitatory role; whereas serotonin and prolactin are inhibitory.



# Desire Depends on

- ❑ Biological drive
- ❑ Adequate self esteem
- ❑ Previous experience with sex
- ❑ Appropriate partner
- ❑ Relationship in non sexual area

# Desire is Affected by :

- ❑ Traumatic sexual experience
- ❑ Emotional abuse or no support
- ❑ Fear of pregnancy
- ❑ Rejection by partner
- ❑ Guilt about sexual pleasure
- ❑ Life stressors, financial worries, loss of job
- ❑ Religious or cultural beliefs about sex
- ❑ Depression

# Dopamine

- ❑ Ventral tegmental area and substantia nigra.
- ❑ Plays role in reward seeking behavior.
- ❑ Steroid hormones increase the production and release of dopamine.
- ❑ Cocaine increases dopamine activity by blocking pre synaptic auto receptors.
- ❑ Affects ejaculation in males and sexual pleasure in females.

# Prolactine

- ❑ Prolactine secretion is increased under stress and lactation. Increased prolactine delays menstrual cycles.
- ❑ Also produces symptoms of estrogen deficiency such as reduced sexual desire, dryness of vagina, and infertility in women.
- ❑ Hyper prolactinemia can be caused by anorexia nervosa, liver disease, kidney disease & hypo thyroidism. Causing erectile dysfunction. Due to interrupted flow of dopamine from hypothalamus even the sexual desire is reduced.

# Oxytocin

- ❑ Neuropeptide hormone. Its cell bodies are found in paraventricular and supra optic nuclei of hypothalamus and are projected to other regions of the posterior pituitary.
- ❑ Various sensory stimuli such as sexual thoughts, sexual smells and breast and genital area stimulation release oxytocin.

# Emotion

- ❑ It's a complex psych-physiological experience of an individual's state of mind as interacting with biochemical (internal) & environmental influences. That involves :
  - Physiological arousal
  - Expressive behavior
  - Conscious experiences
- ❑ Emotion is associated with mood temperament personality disposition and motivation.

# Serotonin

- ❑ Serotonin neurons are found in raphe nuclei in midbrain and projected throughout the body.
- ❑ Found in gastrointestinal tract ,blood platelets and central nervous system.
- ❑ Lumbar and sacral areas that control genital reflexes.
- ❑ SSRI increase serotonin activity impairing Orgasm in females ,ejaculation in males an libido in both.

# Motivation

- ❑ Motivations direct and energize behavior
- ❑ While emotions provide the affective component to motivation.



# Testosteron

- ❑ Well talked in men. But role of androgen decline in the sexual activity of adult males is controversial.
- ❑ Libido in men does not get improved but function may improve in low or low normal testosterone levels
- ❑ In females androgens modulate the physiology of vaginal tissue. Contributing to changes in female arousal.

- ❑ Sensation of pain depends on :
  - Emotional status
  - Experience
  - Gender and Anxiety
  - Expectation
  - Pain threshold

# Case 1

- ❑ 26 year old lady came accompanied by husband and her mother.
- ❑ “I do not feel like it”
- ❑ I like my husband no problems with in the family.
- ❑ I like to be with my husband. Enjoy fore play.
- ❑ BUT when it comes to intercourse I withdraw.

- ❑ No past traumatic experience with sex or physical abuse
- ❑ Very open environment at home.
- ❑ No religious or cultural pressure
- ❑ Only child
- ❑ Played with boys and girls equally.

## Case 2

- ❑ Breast feeding mother.
- ❑ Under went caesarian section about 7 months ago.
- ❑ Complains of lack of desire.

# Case 3

- ❑ Young lady 30. Husband complains of lack of desire.
- ❑ Married 1yr.
- ❑ Lady says “I love my husband” Do not wish to break marriage. But is it so important to have sex ?
- ❑ I have no problem Kissing, his fondling my breasts etc.

# Case 4

- ❑ Married for 18 years
- ❑ Suddenly started losing interest in sex
- ❑ Also complained of dryness and pain
- ❑ Husband also complained of occasional pain after coitus.

# Case 5

- ❑ Lady enjoys sex
- ❑ Cannot reach orgasm with her husband
- ❑ Has experienced orgasm earlier
- ❑ No other man involved



# Case 6

- ❑ Married for 2 years.
- ❑ Known to each other for 7 years
- ❑ Enjoyed sexual interaction within them for 3 years before marriage.
- ❑ Decided to get married
- ❑ BUT after marriage they started finding difficulty
- ❑ Help.
- ❑ We still Love each other
- ❑ No conflicts

- ❑ Young lady of 26 yrs. Married for 5 yrs. Had very fulfilling sexual relationship for first 3 years. Delivered baby boy 1 year ago. Suffered post partum depression. Given Sertraline 25mg bid for 6 months.
- ❑ Sertraline was discontinued since past 6 months. Has lost desire for sex totally since then.
- ❑ Serum Prolactin level 105ng/dl.

- ❑ “Doctor how could I ask my 65yr old neighbor to sleep with me” Young woman of 25. Crying away, had not slept for 2/3 days . Was under treatment for depression for past 8months.
- ❑ BUT not seen the doctor since 6months as she was in good “MOOD”
- ❑ During the period when this incidence happened she had also gone wondering around town. Shopping worth 150000/- within a weeks time. Way beyond her affordability. Did not sleep. Over cooked food etc.



- ❑ My parents got me married at the age of 19.
- ❑ Ever since my marriage I never had desire for sex or felt orgasm.
- ❑ Sexual act gets me irritable
- ❑ I am otherwise a fun loving person. I love my husband hence never shared this with him. We are planning a child and I have not been able to conceive . Feel very nervous and depressed about it. I feel its my lack of desire that's preventing me from becoming pregnant.

# Management

- ❑ Listen and Listen and Listen
- ❑ Keep your own concepts, emotions and social values to yourself.
- ❑ Do not react
- ❑ Physical examination is a must in presence of a nursing staff
- ❑ If you decide to prescribe any anti anxiety anti depressant or hormonal replacement please take a consent
- ❑ Prefer sensuality building and gels and creams over oral medication.
- ❑ Local and systemic management wherever needed
- ❑ Medications like Pink Viagra to be prescribed with lot of care
- ❑ Rekynda is a Bremelanotide that by action is a melanocortin agonist. This has erotogenic properties. Used for hypo active desire and arousal.
- ❑ Manufactured by Palanti Technologies.

**Wish all your patients a very enjoyable  
fulfilling sexual living.**

***Thank You***