

Sexual Side Effects of Psychotropic Medications

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Basics of Sexual Function

- Phases of sexual function
 - Desire
 - Arousal
 - Climax/Orgasm
 - Refractory period

Basics of Sexual Function

- Major differences in sexual response between men and women, therefore can expect different side effects
- Sexual response is influenced by combination of physiologic, psychiatric and emotional factors
- Sexual knowledge.....MYTH trumps fact

In the clinical setting...

- How often are sexual issues discussed?
- Evaluation of sexual functioning should include effect of psychiatric disorder on sexual functioning, previous sexual functioning, impact of medical conditions

Excitatory Neurochemistry-good!

- Alpha-1 agonist
- Beta-2
- Cholinergic
- DHEA
- Dopamine
- Estrogen (women only)
- Human Growth Hormone
- Zinc
- Histamine
- LHRH
- Nitrous oxide
- Oxytocin
- Prostaglandins
- Testosterone
- VIP
- Substance P
- Vasopression

Inhibitory Neurochemistry- bad!

- Alpha-2
- Angiotensin II
- Cortisol
- Estrogen (men)
- Melatonin
- MAO
- Opioids
- Progesterone
- Prolactin
- Serotonin- esp 5-HT
- Thyroid
- Neuropeptide P
- Gaba

Sexual Side Effects

- Direct- direct impact on sexual functioning
- Indirect- examples include weight gain, dizziness, dryness of mucosal membranes, constipation, nausea, etc.....can also impact sexual functioning

Benzodiazepines

- Increase progesterone, decrease testosterone, decrease alpha-1 activity....BAD
- Chronic use leads to decrease in active sexual response
- Problems with arousal, orgasm, delayed ejaculation, decrease in desire
- For women, like ETOH- can cause more passive receptive, indiscriminate sexual behavior
- Benzo blackout, also possible with zolpidem

Benzodiazepines continued

- Possible benefits
 - Decreased anxiety
 - Use as muscle relaxant for vaginismus

Antidepressants- TCA's

- Increase alpha-1, decrease cortisol-Good!
- Decrease beta-2, cholinergic, histamine, oxytocin-Bad!
- Increase prolactin, serotonin- Bad!

Antidepressants-TCA's

- Decrease desire
- Erectile dysfunction
- Dyspareunia
- Diminished orgasm, or anorgasmia
- Spontaneous orgasm-clomipramine and yawning
- Ejaculation- retarded, w/o orgasm, anesthetic

SSRIs and SNRIs

- Increase cortisol, increase opioid, increase prolactin, increase serotonin-ALL BAD!
- Decreased desire
- Erectile dysfunction
- Anorgasmia or orgasmic inhibition
- Delayed ejaculation

SSRIs

- Can be used to treat premature ejaculation
- Sometimes used to treat paraphilias

Trazadone

- Behaves differently
- Increases desire, drive esp in women
- Can cause priapism- penile most known, but reports of clitoral exist
 - Treat with alpha adrenergic stimulants- neosynephrine intracorporoally, epinephrine

Bupropion

- Increases adrenal androgen, alpha-1, dopamine-good!
- Decreases prolactin- good!

- Increases desire
- Facilitates orgasm

Stimulants

- Increase alpha-1, increase dopamine- GOOD!
- Increase desire, drive
- Erectile dysfunction
- Improves orgasm
- Improves retarded ejaculation
- Worsens premature ejaculation

Treatment

- Lower dose
- Weekend “holiday”
- Wait- may attenuate over time
- Change medication

Treatment

- Erectile dysfunction
 - Sildenafil, tadalafil, vardenafil
 - Caution for those using nitrates
 - L-arginine topically

Treatment

- Desire/Orgasm
 - Stimulants
 - Yohimbine
 - Cyproheptadine
 - Bethanacol
 - Add Bupropion