Drug Interactions Overview Psilocybin by drs. Indy Liv Niedlich den Herder

Aim: overview of potential drug interactions with psilocybin to evaluate participant's safety.

The working mechanism of psilocybin is through the serotonin 2A receptor subtype (5-HT2AR). Unfortunately, most antidepressants also work (partly) through this receptor.

Main Categories of Interacting Drugs :

Serotonergic drugs (SSRI's):

- Citalopram (Celexa, Cipramil)
- Escitalopram (Lexapro, Cipralex)
- Fluoxetine (Prozac, Sarafem)
- Fluvoxamine (Luvox, Faverin)
- Paroxetine (Paxil, Seroxat)
- Sertraline (Zoloft, Lustral)

SNRI's (non-selective Reuptake Inhibitors):

- Desvenlafaxine (Pristiq, Khedezla)
- Duloxetine (Cymbalta)
- Levomilnacipran (Fetzima)
- Milnacipran (Ixel, Savella)
- Venlafaxine (Effexor XR)

MAO- inhibitors:

- Bifemelane (Alnert, Celeport)
- Caroxazone (Surodil, Timostenil)
- Isocarboxazid (Marplan)
- Metralindole (Inkazan)
- Moclobemide (Aurorix, Manerix)
- Phenelzine (Nardil)
- Pirlindole (Pirazidol)
- Selegiline (Eldepryl, Zelapar, Emsam)
- Tranylcypromine (Parnate)
- Toloxatone (Humoryl)

TCA's (tricyclic antidepressants):

- Amineptine (Survector, Maneon)
- Amitriptyline (Elavil, Endep)
- Amitriptylinoxide (Amioxid, Ambivalon, Equilibrin)
- Amoxapine (Asendin)
- Clomipramine (Anafranil)
- Desipramine (Norpramin, Pertofrane)
- Dibenzepin (Noveril, Victoril)
- Dimetacrine (Istonil)
- Dosulepin (Prothiaden)

- Doxepin (Adapin, Sinequan)
- Imipramine (Tofranil)
- Lofepramine (Lomont, Gamanil)
- Maprotiline (Ludiomil)
- Melitracen (Dixeran, Melixeran, Trausabun)
- Mianserin (Tolvon)
- Mirtazapine (Remeron)
- Nitroxazepine (Sintamil)
- Nortriptyline (Pamelor, Aventyl)
- Noxiptiline (Agedal, Elronon, Nogedal)
- Opipramol (Insidon)
- Pipofezine (Azafen/Azaphen)
- Protriptyline (Vivactil)
- Setiptiline (Tecipul)
- Tianeptine (Stablon, Coaxil)
- Trimipramine (Surmontil)

NRI (norepinephrine reuptake inhibitor):

- Atomoxetine (Strattera)
- Bupropion (Wellbutrin)
- Methylphenidate (Ritalin, Concerta)
- Reboxetine (Edronax)
- Teniloxazine (Lucelan, Metatone)
- Viloxazine (Vivalan)

SMS (serotonin modulators):

- Trazodone (Desyrel)
- Vilazodone (Viibryd)
- Vortioxetine (Trintellix)

Opioids:

• Tramadol
• Pethidine
• Meperidine

CNS (central nervous system stimulants):

- Phentermine
- Diethylpropion
- Amphetamine (Ritalin, Adderal)
- Methylphenidate
- Methamphemtamine
- Cocaine

5HT1 agonist:

• Triptans
• Phenylalamines • MDMA

• Amphetamines
• Methylphenidate
• Methamphemtamine

Indoles:

• LSD

Herbal supplements:

• St John's Worth (serotonin receptor) • Yohimbe

Others

Lithium, Montelukast, Buspirone, Linezolid, Dextromethorphan, 5-Hydroxytryptophan, chlorpheniramine

Use of all the above medication must have been stopped before participating in a psilocybin ceremony.

Potential harmful effects

Serotonin Syndrome

Signs and symptoms of serotonin syndrome include anxiety, agitation, high fever, sweating, confusion, tremors, restlessness, lack of coordination, major changes in blood pressure and a rapid heart rate.

It is reported that participants who are taking SSRI's have less effect of psilocybin due to receptor insensitivity.

Unfortunately, there is little and almost no recent research, but Johnson et al2 summarized the findings:

- chronic use of tricyclic antidepressants and lithium potentiate the psychedelic effects and create a safety concern this way.
- the same holds for acute use of SSRI's (selective serotonin reuptake inhibitors), and the antipsychotic haloperidol.
- on the other hand, chronic use of SSRI's and MAOI's (monoamine oxidase inhibitors) show a decreased sensitivity to psychedelics, which can severely lessen the experience of a retreat.
- a lot of over-the-counter supplements and herbs that affect serotonin function (like 5-HTP or st. John's Wort can cause unforeseen effects and thus create an extra risk. It is advisable to stop using these products before going on a retreat, preferably longer than a week, to be on the safe side.

Sources

1. https://www.mayoclinic.org/diseases-conditions/depression/in-depth/ssris/art-20044825 2. Johnson, M., Richards, W., & Griffiths, R. (2008). Human hallucinogen research: guidelines for safety. *Journal of Psychopharmacology,* 22(6), 603–620. doi:10.1177/0269881108093587
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