

Antidepressant agents

Depression is one of the most frequently diagnosed psychiatric disorders in the general population, the symptoms of which negatively impact health and are associated with high financial costs. A wide variety of antidepressant drugs are available to treat symptoms of depression. Such antidepressants produce their therapeutic effects through actions on diverse neurotransmitter systems, including the serotonergic, noradrenergic, and dopaminergic systems. The principal antidepressant drugs are tricyclic antidepressants, monoamine oxidase inhibitors, selective serotonin reuptake inhibitors, selective dopamine reuptake inhibitors, selective norepinephrine reuptake inhibitors, and dual antidepressant drugs. Most antidepressant drugs have a delayed onset of therapeutic actions and many have side effects when taken in the long term. This has led patients to search for alternatives, based on the use of plants with reputed antidepressant activity. An increasing number of studies have investigated natural chemical compounds with potential antidepressant activity, including bioactive metabolites, such as flavonoids, that exert multiple effects on the central nervous system.

Medical uses

Antidepressants are used to treat major depressive disorder and other conditions, including some anxiety disorders, some chronic pain conditions, and to help manage some addictions. Antidepressants are often used in combinations with one another.

Major depressive disorder

According to the UK National Institute for Health and Care Excellence (NICE) 2009 antidepressants should not be routinely used for the initial treatment of mild depression, because the risk-benefit ratio is poor. The guidelines recommended that antidepressant treatment be considered for:

- People with a history of moderate or severe depression;
- Those with mild depression that has been present for a long period;
- As a second-line treatment for mild depression that persists after other interventions;
- As a first-line treatment for moderate or severe depression.

The guidelines further note that antidepressants treatment should be used in combination psychosocial interventions in most cases, should be continued for at least six months to reduce the risk of relapse. American Psychiatric Association treatment guidelines recommend that initial treatment should be individually tailored based on factors that include severity of symptoms, co-existing disorders, psychotherapy, electroconvulsive therapy, transcranial magnetic stimulation or light therapy.

Anxiety disorders

Generalized anxiety disorder

Antidepressants are recommended for treatment of generalized anxiety disorder that has failed to respond to conservative measures such as education and self-help activities. This is a common disorder of which the central feature is excessive worry about a number of different events. Key symptoms include excessive anxiety about multiple events and issues, and difficulty controlling worrisome thoughts that persists for at least 6 months.

Social anxiety disorder

Some antidepressants are used as a treatment for social anxiety disorder, but their efficacy is not entirely convincing, as a small proportion of antidepressants showed some efficacy for this condition. Paroxetine was the first drug to be approved for this disorder. Its efficacy is considered beneficial, although not everyone responds favorably to the drug. Sertraline and fluvoxamine extended release were later approved for it as well, while escitalopram is used off-label with acceptable efficacy. However, there is not enough evidence to support citalopram for treating social phobia, and fluoxetine was no better than placebo in clinical trials. SSRIs are used as a first-line treatment for social anxiety, but they do not work for everyone.

Obsessive-compulsive disorder

SSRIs are a second-line treatment of adult obsessive-compulsive disorder (OCD) with mild functional impairment and as first-line treatment for those with moderate or severe impairment. In children, SSRIs are considered as a second-line therapy in those with moderate-to-severe impairment, with close monitoring for psychiatric adverse effects. SSRIs appear useful for OCD, at least in the short term. Efficacy has been demonstrated both in short-term treatment trials of 6 to 24 weeks and in discontinuation trials of 28 to 52 weeks duration.

Post traumatic stress disorder

Antidepressants are one of the treatment options for PTSD, however their efficacy is not well established. Two antidepressants are approved for it, paroxetine and sertraline. They belong to the serotonin reuptake inhibitors class. Paroxetine has slightly higher response and remission rates than sertraline for this condition, however both drugs are not considered very helpful for every person that takes them.

Panic disorder

Panic disorder is relatively treated well with medications compared with other disorders. Several classes of antidepressants have shown efficacy for this disorder. SSRIs and SNRIs are used first-line. Paroxetine, sertraline and fluoxetine are approved for panic disorder, although fluvoxamine, escitalopram and citalopram are considered effective for it.

Eating disorders

Antidepressants are recommended as an alternative or additional first step of treating bulimia nervosa. Fluoxetine is preferred over other antidepressants due to its acceptability and reduction of symptoms in short-term trials. Similar recommendations are applied to the binge eating disorder. Clinical trials have generated negative results for the use of SSRIs in the treatment of anorexia nervosa.

Adverse effects

Difficulty tolerating adverse effects is the most common reason for antidepressant discontinuation. Almost any medication involved with serotonin regulation has the potential to cause serotonin toxicity. This is an excess of serotonin which can induce mania, restlessness, agitation, emotional lability, insomnia and confusion as its primary symptoms. Although the condition is serious, it is not particularly common, generally only appearing at high doses or while on other medications. Assuming proper medical intervention has been taken it is rarely fatal. Antidepressants appear to increase the risk of diabetes by about 1.3 fold.

Answer the questions:

1. Describe the antidepressant agents.

2. What are the medical uses of antidepressants?
3. In combination with what interventions should the antidepressants be used for treating major depressive disorder?
4. What are the key symptoms of the generalized anxiety disorder?
5. Which is the first drug which is approved for treating social anxiety disorder?
6. Are SSRIs useful for treating obsessive-compulsive disorder?
7. Which are the two antidepressants approved for treating post traumatic stress disorder?
8. What medicines are used for the treatment of panic disorder?
9. Describe the treatment of eating disorders?
10. What are the adverse effects after the treatment with antidepressants?

According to you are the antidepressant agents useful for treating anxiety disorders? Use between 50 and 80 words.