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Four Cases of Chronic Pain That Improved Dramatically Following Low-Dose Aripiprazole Administration

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To the Editor: The role played by the brain's dopamine system in pain control has garnered attention in recent years.¹ Herein, we report 4 cases of long-term chronic pain (pain disorder [*DSM-IV-TR*]) that improved dramatically following administration of a low dose of aripiprazole, a partial dopamine agonist. None of these 4 patients satisfied the *DSM-IV-TR* diagnostic criteria for schizophrenia.

Case 1. Mr A, a 42-year-old man, had a chief complaint of chronic head and neck pain that had persisted for 10 years and was refractory to administration of morphine 70 mg/d. He visited our department in December 2008 and was diagnosed with pain disorder and pervasive developmental disorder. Although fluvoxamine treatment was started, with the dosage gradually increased to 200 mg/d, it was ineffective and the pain exacerbated. Upon switching to aripiprazole 3 mg/d, the pain improved dramatically, and the patient was able to discontinue morphine. After increasing the dose to 6 mg/d, the patient became able to go fishing for the first time in a few years, and his motivation increased.

Case 2. Mr B, a 35-year-old man, had chronic back and leg pain that had persisted for 15 years and particularly worsened following sexual intercourse. He had visited over 20 medical institutions in the past and had not responded to antidepressants. He visited our department in March 2009 and was diagnosed with pain disorder. Pain disappeared after initiation of aripiprazole 2 mg/d, and the patient's passion for his work in computer software development improved.

As aripiprazole was effective in the treatment of pain disorder in Cases 1 and 2, we subsequently also used it for Cases 3 and 4, and it was effective. Below are concise descriptions of Cases 3 and 4.

Case 3. Ms C, an 83-year-old woman, had developed Parkinson's disease and back and leg pain (pain disorder) 4 years before. She visited our department in August 2009. Pain improved following administration of aripiprazole 3 mg/d, and the patient began going out rather than staying home as she had been, and her level of activity improved.

Case 4. Ms D, a 68-year-old woman, had developed pain at the top of the head (pain disorder) a year before she visited our department in October 2009. Pain disappeared after we added aripiprazole 2 mg/d to sertraline 100 mg/d, and the patient's motivation toward housework improved.

These 4 patients were characterized by reduction of pain and improved motivation following low-dose aripiprazole administration. Dopamine plays a role in pain processing via μ opioids.¹ Dopamine-related diseases

often exhibit pain-related symptoms. For example, pain is a common complaint among patients with Parkinson's disease,² and those with schizophrenia are known to have a reduced pain sensitivity.³ In other words, the degree of dopamine system activation is inversely proportional to the degree of pain. These 4 cases suggest that aripiprazole, a dopamine system stabilizer, may be a therapeutic option for chronic pain.

REFERENCES

Go to:

1. Leknes S, Tracey I. A common neurobiology for pain and pleasure. *Nat Rev Neurosci*. 2008;9(4):314–320. [[PubMed](#)]
2. Tinazzi M, Del Vesco C, Fincati E, et al. Pain and motor complications in Parkinson's disease. *J Neurol Neurosurg Psychiatry*. 2006;77(7):822–825. [[PMC free article](#)] [[PubMed](#)]
3. Potvin S, Grignon S, Marchand S. Human evidence of a supra-spinal modulating role of dopamine on pain perception. *Synapse*. 2009;63(5):390–402. [[PubMed](#)]

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Abilify

Generic Name: aripiprazole (AR i PIP ra zole)

Brand Names: *Abilify, Abilify Discmelt*

What is Abilify?

Abilify (aripiprazole) is an antipsychotic medication. It works by changing the actions of chemicals in the brain.

Abilify is used to treat the symptoms of psychotic conditions such as schizophrenia and bipolar disorder [↗](#) (manic depression). It is also used together with other medications to treat major depressive disorder [↗](#) in adults.

Abilify is also used to treat irritability and symptoms of aggression, mood swings, temper tantrums, and self-injury related to autistic disorder in children who are at least 6 years old.

Important information

Abilify is not approved for use in psychotic conditions that are related to dementia. Abilify may increase the risk of death in older adults with dementia-related conditions.

Some young people have thoughts about suicide when taking medicine for a major depressive disorder and other psychiatric disorders. Your doctor will need to check your progress at regular visits while you are using Abilify. Your family or other caregivers should also be alert to changes in your mood or symptoms.

Stop using Abilify and call your doctor at once if you have the following symptoms: fever with stiff muscles and rapid heart rate; uncontrolled muscle movements; symptoms that come on suddenly such as numbness or weakness, severe headache, and problems with vision, speech, or balance.

Before taking this medicine

Abilify is not approved for use in psychotic conditions that are related to dementia. Abilify may cause heart failure [↗](#), sudden death, or pneumonia in older adults with dementia-related conditions.

You should not take Abilify if you are allergic to aripiprazole.

To make sure this medicine is safe for you, tell your doctor if you have:

- liver or kidney disease;

- heart disease, high or low blood pressure , heart rhythm problems;
- high cholesterol or triglycerides (a type of fat in the blood);
- a history of low white blood cell (WBC) counts;
- a history of heart attack or stroke;
- a history of breast cancer;
- seizures or epilepsy;
- a personal or family history of diabetes; or
- trouble swallowing.

Some young people have thoughts about suicide when taking medicine for a major depressive disorder and other psychiatric disorders. Your doctor will need to check your progress at regular visits while you are using Abilify. Your family or other caregivers should also be alert to changes in your mood or symptoms.

The liquid form (oral solution) of this medication may contain up to 15 grams of sugar per dose. Before taking the oral solution, tell your doctor if you have diabetes.

Abilify may cause you to have high blood sugar (hyperglycemia). Talk to your doctor if you have any signs of hyperglycemia such as increased thirst or urination, excessive hunger, or weakness. If you are diabetic, check your blood sugar levels on a regular basis while you are taking Abilify.

The orally disintegrating tablet form of this medication may contain over 3 milligrams of phenylalanine per tablet. Before taking Abilify Discmelt, tell your doctor if you have phenylketonuria.

FDA pregnancy category C. Tell your doctor if you are pregnant or plan to become pregnant during treatment.

See also: Pregnancy and breastfeeding warnings (in more detail)

Taking antipsychotic medication during the last 3 months of pregnancy may cause problems in the newborn, such as withdrawal symptoms, breathing problems, feeding problems, fussiness, tremors, and limp or stiff muscles. However, you may have withdrawal symptoms or other problems if you stop taking your medicine during pregnancy. **If you become pregnant while taking Abilify, do not stop taking it without your doctor's advice.**

Aripiprazole can pass into breast milk and may harm a nursing baby. You should not breast-feed while using this medicine.

How should I take Abilify?

Take Abilify exactly as prescribed by your doctor. Follow all directions on your prescription label. Your doctor may occasionally change your dose to make sure you get the best results. Do not take this medicine in larger or smaller amounts or for longer than recommended.

Do not take this medicine for longer than 6 weeks unless your doctor has told you to.

Abilify can be taken with or without food.

Measure liquid medicine with a special dose-measuring spoon or medicine cup. If you do not have a dose-measuring device, ask your pharmacist for one.

To take the orally disintegrating tablet (Abilify Discmelt):

- Keep the tablet in its blister pack until you are ready to take it. Open the package and peel back the foil. Do not push a tablet through the foil or you may damage the tablet.
- Use dry hands to remove the tablet and place it in your mouth.
- Do not swallow the tablet whole. Allow it to dissolve in your mouth without chewing. If desired, you may drink liquid to help swallow the dissolved tablet.

Use Abilify regularly to get the most benefit. Get your prescription refilled before you run out of medicine completely.

Your doctor will need to check your progress while you are using this medicine.

Store at room temperature away from moisture and heat. Abilify oral solution may be used for up to 6 months after opening, but not after the expiration date on the medicine label.

What happens if I miss a dose?

Take the missed dose as soon as you remember. Skip the missed dose if it is almost time for your next scheduled dose. Do not take extra medicine to make up the missed dose.

What happens if I overdose?

Seek emergency medical attention or call the Poison Help line at 1-800-222-1222.

Overdose symptoms may include drowsiness, vomiting, aggression, confusion, tremors, fast or slow heart rate, seizure (convulsions), trouble breathing, or fainting.

What should I avoid?

This medication may impair your thinking or reactions. Be careful if you drive or do anything that requires you to be alert.

Avoid getting up too fast from a sitting or lying position, or you may feel dizzy. Get up slowly and steady yourself to prevent a fall.

Drinking alcohol can increase certain side effects of Abilify.

Avoid becoming overheated or dehydrated. Drink plenty of fluids, especially in hot weather and during exercise. It is easier to become dangerously overheated and dehydrated while you are taking Abilify.

Abilify side effects

Get emergency medical help if you have any of these **signs of an allergic reaction to Abilify**: hives; difficult breathing; swelling of your face, lips, tongue, or throat.

Stop using Abilify and call your doctor at once if you have:

- very stiff (rigid) muscles, high fever, sweating, confusion, fast or uneven heartbeats, tremors, feeling like you might pass out;
- severe agitation, distress, or restless feeling;
- twitching or uncontrollable movements of your eyes, lips, tongue, face, arms, or legs;
- mask-like appearance of the face, trouble swallowing, problems with speech;
- seizure (convulsions);
- thoughts about suicide or hurting yourself;
- low blood cell counts--sudden weakness or ill feeling, fever, chills, sore throat, swollen gums, painful mouth sores, red or swollen gums, skin sores, cold or flu symptoms, cough, trouble breathing; or
- high blood sugar--increased thirst, increased urination, hunger, dry mouth, fruity breath odor, drowsiness, dry skin, weight loss.

Common Abilify side effects may include:

- weight gain;
- blurred vision;
- drooling;
- dizziness, drowsiness; or

- sleep problems (insomnia).

This is not a complete list of side effects and others may occur. Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

See also: Side effects (in more detail)

What other drugs will affect Abilify?

Taking this medicine with other drugs that make you sleepy can worsen this effect. Ask your doctor before taking Abilify with a sleeping pill, narcotic pain medicine, muscle relaxer, or medicine for anxiety, depression, or seizures.

Many other drugs can interact with aripiprazole. This includes prescription and over-the-counter medicines, vitamins, and herbal products. Not all possible interactions are listed here. Tell your doctor about all your medications and any you start or stop using during treatment with this medicine.

Where can I get more information?

- Your pharmacist can provide more information about Abilify.

Remember, keep this and all other medicines out of the reach of children, never share your medicines with others, and use Abilify only for the indication prescribed.

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