

DIAGNOSIS

## What Western Drugs Are Your Patients Taking? Part 1

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The patients who come to your office to receive acupuncture and/or herbal therapy are often taking Western drugs. These may be over-the-counter (OTC) medications for pain control, allergies, colds, flu symptoms or a variety of other common problems. They may be prescription drugs for such conditions as hypertension, diabetes, anxiety, depression, arthritis or heart disease. All of these pharmaceutical chemicals have their own distinct effects on the physical condition of the patient.

Making a list of all the medications your patient takes on a daily basis is an important part of your careful assessment of that person prior to your own treatment. Having an adequate knowledge of what these drugs are and the effects they have will benefit your care of the patient and enhance the effectiveness of your treatments.

In this article and subsequent ones, I would like to undertake a brief review of the major categories of Western drugs you are most likely to encounter. I will describe what they do, and some things to watch out for. In this article, I will cover drugs that exert their major effects on the nervous system. The following discussion presupposes a basic understanding of the physiology of the nervous system.

## Pain-Control Drugs

These are the most common medications and include the full spectrum from OTCs like aspirin, Tylenol and Advil, to weak narcotics that often contain codeine, to major narcotics such as morphine, Oxycontin and Demerol. Morphine and other strong narcotics are used in cases of major trauma, preand postoperative situations, and with severe chronic pain in conditions like terminal cancer. All these agents have many side effects, including respiratory depression and constipation, which can be severe. Nausea and vomiting are not uncommon. If used in excess, Tylenol can result in liver failure. Advil can also damage the liver but is more likely to cause gastric bleeding. Many patients who have taken either of these drugs in the past are switching to the safer OTC drug Aleve. About 100,000 patients are admitted each year to hospitals in the U.S. with gastric bleeding due to the ingestion of these nonsteroidal anti-inflammatory drugs (NSAIDs).

## Psychiatric drugs

Antidepressants: Major depression is associated with chemical imbalances in the brain, and is characterized by the loss of the ability to enjoy life or find any pleasure or comfort in it. Many depressed individuals suffer from feelings of intense sadness, a strong sense of worthlessness, loss of sex drive, and either insomnia or hypersomnia. Many harbor thoughts of death or suicide. There are three classes of effective medications for depression:

Selective serotonin reuptake inhibitors (SSRIs) have become very popular in recent years. Examples include Prozac, Zoloft, Paxil, Effexor and Wellbutrin. All of them inhibit the reuptake of serotonin, and often norepinephrine as well, increasing the concentration of these neurotransmitters in the brain.

*Tricyclic antidepressants* (TCAs) such as Elavil, Tofranil and Sinequan block the re-uptake of monoamine neurotransmitters (dopamine, norepinephrine, epinephrine and serotonin), thus increasing their availability at brain receptor sites. These neurotransmitters enhance alertness and facilitate coping skills. They generally improve mood.

Monoamine oxidase inhibitors (MAOIs) such as Nardil and Marplan block the breakdown of monoamine neurotransmitters, which are continuously being chemically recycled. This increases their concentration in the brain.

Side effects are frequent with all these drugs, and they should be prescribed only by experienced clinicians in situations where other measures have not proven fruitful. TCAs have anticholinergic effects on the body that decrease parasympathetic function, resulting in dry mouth and throat, pupil dilation with possible blurred vision, tachycardia, trouble voiding and constipation. Other side effects of TCAs and MAOIs include weight gain, impotence, postural hypotension, agitation, uncontrollable bursts of temper, hallucinations or seizures. The SSRIs can cause headaches, nausea, diarrhea, nervousness, skin rashes or insomnia. About 15 percent of those started on Prozac must be taken off the drug because of side effects, but the literature reports that most of the patients who tolerate the drug stay on it because it is so helpful.

Anxiety and Sedation: Even more common than depression in our society is excessive anxiety. The two major classes of drugs used for anxiety and/or sedation are the benzodiazepines and the barbiturates. They are among the most widely used drugs in the U.S. as well as in many other industrialized countries. Here is some information about these two types of drugs:

Benzodiazepines enhance gamma-aminobutyric acid (GABA) secretion in the brain, causing sedative effects and skeletal muscle relaxation. These drugs may also inhibit neuronal activity by other mechanisms that are not well-understood. They treat anxiety states, nervous tension, agitation and delirium tremens during alcohol withdrawal. They are also used as anticonvulsants. The most widely known is Valium. It is the most rapidly absorbed of all these drugs and has a prolonged length of active time in the body. Dalmane, Librium, Tranxene and Klonopin are also widely used long-acting benzodiazepines. Shorter-acting benzodiazepines include Versed, Xanax, Ativan, Serax and Restoril.

Barbiturates facilitate the retention of GABA and chloride, causing sedation while providing a sense of euphoria. These medications are more directly sedating than the benzodiazepines so are used as sleeping medications, a supplement to general anesthetics, and for control of seizures. Barbiturates have been widely used for much longer than the benzidiazepines, and include barbital, phenobarbital and mephobarbitol. These three drugs are long-acting barbiturates. Well-known short-acting barbiturates include secobarbital, amobarbital and pentobarbital (Sodium Pentothal, the so-called "truth serum"). Ultra-short-acting thiopental is used as an anesthetic agent. Side effects of both classes of drugs are similar: drowsiness, dysarthria (trouble speaking clearly), ataxia, dermatitis and a curious paradoxical overstimulation with drunken-like behavior.

ADD/ADHD: This disorder is characterized by restlessness, easy distractibility, short attention span and compulsivity. It is extremely common in childhood and also occurs in many adults. It is wise to avoid drugs when other treatment options are equally effective or the drugs available are especially

dangerous. However, drug therapy has been widely accepted by many conservative practitioners. This is because of the striking effectiveness of some of the medications that are now available. ADD/ADHD may indeed be over-diagnosed in the U.S., but you should know that a surprising number of children are taking one of the medications discussed below.

Amphetamines or similar-acting drugs that are mild central nervous system (CNS) stimulants have been shown to reduce or even eliminate symptoms in almost 90 percent of children who take them reliably and appropriately. Dexedrine and Ritalin have the paradoxical effect of stimulating the brain in ways that cause the child to focus and pay better attention. These drugs are combined with family counseling and psychotherapy for best results. The most common side effect is CNS overstimulation, with insomnia, dizziness, agitation and loss of appetite. Hypertension or even cardiac arrhythmias can sometimes occur. Patients need to be carefully monitored and changed to another drug or have the drug withdrawn without replacement if these side effects occur.

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