Safety and Effectiveness of Herbal Supplements

Ravinder Mantani, MD
Professor of Public Health
Weill Cornell Medical College in Qatar

Today, the use of herbal medicines is widespread worldwide. The World Health Organization estimates they are used in some form by more than 4 billion people, or 80 percent of the world population. According to recent studies, in the US, consumers are spending an estimated $4 to 5 billion annually on herbal supplements, the sales of which are increasing at about 15 to 20 percent a year.

In the Arab world, herbal remedies have a long and respected tradition. References in the Qur’an to many herbs and plants - from the date, the olive and the pomegranate to aloe, sage, and thyme, among others - have kept their use alive for medicinal purposes over the centuries.

The information below is designed to help consumers make informed decisions about their use. It should be emphasized that herbal supplements contain active pharmacological substances that have the ability to alter biochemical and physiologic body functions. Their benefits, risks and limitations are becoming apparent.

Evidence in Favor of Herbal Supplements

Many studies have produced positive results in favor of several supplements. There is enough evidence, for example, to support the use of certain herbal supplements like saw palmetto, gingko and St John’s wort for the treatment of benign prostate hyperplasia, dementia and depression, respectively. There is very little evidence, on the other hand, in favor of other supplements like ginseng, feverfew and evening primrose oil.

Safety Issues

Most supplements are considered to be generally safe when used in moderate doses with only minimal side effects. However, adverse effects can occur. For example, kava, which is commonly used for its anxiety relieving effect, may produce serious liver damage. Also, many herbal products may interfere with or displace effective treatments.

For example, we know now that the use of St John’s wort may reduce the levels of anti-HIV medication, namely indinavir, among patients with AIDS.

Messages on the labels of herbs for sale are often confusing and vague. For example, in the US, supplements may include messages such as, “helps support urinary tract,” and “helps maintain normal blood vessel tone.” These messages are open to a wide range of interpretations.

In many nations, manufacturers of herbal products have no legal obligation to disclose information about potential side effects, contraindications, or warnings. Therefore, it is vitally important that you educate yourself concerning their benefits and risks. Quality control and standardization of the supplements are difficult issues and may not be regulated in many regions of the world. Few generic equivalents are available in the market. Also, the quality of supplements from different manufacturers varies considerably.
Advice for Consumers

Treat herbal supplements as medicines. Many may produce side effects and interact with other prescription medicines. Consult a medical doctor before using them, especially if you are pregnant or lactating, or have a medical condition. Giving herbal remedies to young children is inappropriate. Buy supplements from reputable companies, and do not exceed recommended doses. Remember “more” does not mean “better”.

Information about some side effects and safety concerns of commonly used herbal supplements appears in the box below.

<table>
<thead>
<tr>
<th>Supplement</th>
<th>Common use</th>
<th>Side effects and interactions</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echinacea</td>
<td>Upper respiratory tract infections, common cold</td>
<td>Rash, pruritis, severe allergic reactions; long term effects unknown; contraindicated in multiple sclerosis and HIV infections.</td>
<td>Inconclusive</td>
</tr>
<tr>
<td>St John’s wort</td>
<td>Mild to moderate depression</td>
<td>Gastrointestinal upset; can reduce levels of prescription medicines such as antivirals and blood thinners; confusion and excitability when combined with other antidepressants.</td>
<td>Beneficial in mild to moderate depression</td>
</tr>
<tr>
<td>Gingko biloba</td>
<td>Dementia; memory improvement; and claudication</td>
<td>Gastrointestinal distress; headache; enhances effect of blood thinners and may cause bleeding.</td>
<td>Beneficial for dementia.</td>
</tr>
<tr>
<td>Ginseng</td>
<td>General health promotion, sexual function, energy, fertility</td>
<td>High doses may cause diarrhea, hypertension, insomnia, nervousness, and may interact with blood-sugar controlling agents, blood thinner warfarin and antidepressants.</td>
<td>No conclusive evidence for any condition.</td>
</tr>
<tr>
<td>Saw palmetto</td>
<td>Benign prostate enlargement</td>
<td>Concern: may cause false negative results of PSA screening test for prostate cancer.</td>
<td>May improve urinary symptoms of enlarged prostate.</td>
</tr>
<tr>
<td>Valerian</td>
<td>Insomnia, anxiety</td>
<td>Fatigue, tremor, headache, not advised with other sedativehypnotics.</td>
<td>Inconclusive</td>
</tr>
</tbody>
</table>


*The medical information in this article is provided as an information resource only, and is not to be used or relied on for any diagnostic or treatment purposes. This information is not intended to be patient education, does not create any patient-physician relationship, and should not be used as a substitute for professional diagnosis and treatment. If you have or suspect that you have a medical problem or condition, please contact your physician.*

© Weill Cornell Medical College in Qatar