St. John's Wort and Depression

What is St. John's Wort?

St. John's Wort scientifically known as Hypericum Perforatum, an herbal remedy generally used to treat depression, is making a rise throughout Europe and the United States. St. John's Wort is a perennial plant that produces abundant yellow flowers and grows naturally throughout much of the world, including specifically in northern California, southern Oregon, and Colorado. It usually flowers on “sunlight hills and forest edges” during the summer, between June and August. It was named after St. John the Baptist and is often harvested and in full bloom around St. John's Day, June 24.

History of St. John's Wort

St. John’s Wort has been in use for about 2400 years and has been utilized for many different purposes throughout history. Some of these less modern uses have been nerve tonic, painkiller, including effectiveness for relieving arthritis pain and menstrual cramping, and relief for gastrointestinal problems such as diarrhea, nausea, and more serious problems like ulcers. Now it is becoming more common as a remedy for depression and anxiety but is simultaneously being tested as a possible type of assistance for AIDS patients because it appears to help the immune system combat viruses.

St. John's Wort as an antidepressant

One out of every 20 Americans will become depressed this year. This is obviously a very major and serious problem. St. John’s Wort’s main ingredient, hypericin, is what appears to help alleviate mild to moderate depression. Hypericin is the red pigment of the plant and it seems to inhibit monoamine oxidase (MAO) and the breakdown of the brain’s neurotransmitters and is also a SRI, serotonin reuptake inhibitor.

St. John’s Wort is becoming increasingly popular mostly due to the lack of side effects. Other prescription antidepressants such as Prozac, Zoloft, and Paxil often produce effects like weight loss, sexual dysfunction, and insomnia. In a controlled study of St. John’s Wort, only 2.4% of the subjects experienced any side effects, those of which were minor. Some of these minimal effects are stomach discomfort, allergic reactions, and restlessness. Formal studies are now being conducted in the United...
States but this plant has been used in Europe, particularly Germany, for centuries without any reported deaths. In fact, this treatment is so popular in Germany that it is prescribed by more than seven to one over Prozac, which is a very popular antidepressant in the United States. German doctors generally write near 3 million different prescriptions per year for St. John’s Wort. People also often prefer to take natural supplements as opposed to prescription drugs when possible although in Germany, the doctors prescribe St. John’s Wort. St. John’s Wort is also significantly cheaper than prescription antidepressants, costing approximately between $6.50 and $13 per bottle for varying volumes and potencies, which averages out to about $0.25 per day. This is obviously an attractive quality of the drug, especially because antidepressants are generally taken on a long-term basis. All of these qualities—minimal side effects, natural remedy, and cost effectiveness are all selling points for this treatment, which is sold in health food stores rather than pharmacies. In fact, even Wal-Mart is trying to become a vendor of this rapidly spreading trend. You don’t need a prescription to take this, but doctor consultation is highly recommended.

Common symptoms and characteristics of depression are the well-known things like sadness, suicidal thoughts, hopelessness, worthlessness, and crying but there are also other effects like minimal energy and fatigue, decreased sex drive, weight fluctuation, and insomnia or hypersomnia. These are terrible things to feel and experience but with proper help and/or drugs, these may be minimized, or even cured. St. John’s Wort has been shown to help with the symptoms of anxiety, fatigue, and of course, the general feelings of sadness and hopelessness. In clinical studies, “patients suffering from depression received relief, increased appetite, more interest in life, greater self-esteem and restoration of normal sleeping patterns”. Once the overall depression and the feelings of helplessness and sadness subside, the physical factors seem to improve on their own, due to a more positive mental state.

Side effects and cautions

When it is in season, “the flowers and leaves are harvested, then dried and processed into a powdered extract. The powder is shaped into a pill coated with sugar, then dried and packaged, ready to go”. St. John’s Wort is sold in this tablet form but also as an oil and a tea. To construct the tea, you use 1-2 cups of the plant’s flower added to 1 cup of boiling water 3 times a day. The general dosage is to take it 3 times a day with each dose being 300 milligrams of 0.3% hypericin extract. It is sold in bottles ranging from 0.125% to 0.3% hypericin but 0.3% is the general recommended dosage.

St. John’s Wort is not recommended for children except under strict physician care but it has been found to be incredibly effective in adolescents, which are often a very complicated group to treat.

Patients are advised to avoid some foods and medicines such as alcohol, narcotics, amphetamines, tyrosine, over-the-counter flu medicines, and foods containing tyramine, such as yeast, aged cheese, eggplant, and soy sauce. Those who take St. John’s Wort should not take it in conjunction with prescription antidepressants.
Women who are pregnant or currently lactating should not take this “drug”. Also patients that are bi-

d-polar or manic-depressive shouldn’t view St. John’s Wort as a possible remedy for their

depression. This plant also seems to cause photosensitivity so patients ingesting it should try to avoid
direct sunlight or other strong UV lights and those who are already sensitive to the sun should seriously
consider that before buying St. John’s Wort.

St. John’s Wort’s beneficiary effects cannot be felt immediately but usually after a span of 4-8 weeks,
patients have usually improved a lot. In fact, studies show that about 60% to 80% of patients ameliorate
within this time span. Also concluded from these studies, it is recognized that 15% to 20% of the
subjects didn’t respond at all to this treatment.

Many people have posed the question: “If this extract is so beneficiary for so many different reasons
and has no major side effects, shouldn’t we all take it just to be more healthy and hopefully prevent
future depression?” Well, no we shouldn’t, because we don’t have any scientific evidence about the
long-term effects of St. John’s Wort and there really isn’t any concrete evidence of it making “normal”
people feel better.

Research findings

St. John's Wort versus placebo

De Smet (1996) found that St. John's Wort was more effective than a placebo after four weeks of
treatment. The improvements in the patients' depression according to the Hamilton depression scale
were apparent. Also there was another six week study that compared a placebo with St. John's Wort and
St. John's Wort proved more effective in this trial as well. According to the author of this article, these
trials aren't necessarily very reliable because not all of the patients' depression was properly classified.

According to Linde, Ramirez, etc. (1996), improvement in depression of those subjects that took St.
John's Wort extract also far surpassed the improvement of the placebo group. In this study, there were
15 randomized trials using subjects with mild or moderate depression and 55.1% of the subjects in the
hypericum groups responded positively while only 22.3% of the placebo groups improved. The St.
John's Wort groups improved almost twice as much as the placebo groups, which is pretty strong
evidence that this herb has some beneficial effects in treating mild to moderate depresion.

Nordfors and Hartvig (1997) conducted 25 controlled clinical trials comparing St. John's Wort to both
placebo and other standard antidepressants. In their study, they found that given a low-dose treatment of
less than 1.2 mg of hypericum extract, 61% of patients improved whereas given a higher dosage of 2.7
mg, an amazing 75% of patients showed improvement. This evidence also identifies hypericum extract
as a beneficial medication in the alleviation of depression.. I could not find this journal in the Eskind
Biomedical library because it is German and the abstract is a little unclear as to whether these results are
compared with placebo or standard antidepressants but as I understand it, these were just the overall improvements that the patients who were taking St. John's Wort made.

Schmidt and Sommer (1993) performed a randomized double-blind trial using a placebo as the control group comparing it to St. John's Wort. Those patients taking hypericum responded at a rate of 66.6% whereas only 26.7% of the placebo patients responded. This resource was also only an abstract due to the lack of German journal resources in local facilities.

I found another very non-descriptive abstract of an article written by Ernst (1995) that claims that St. John's Wort does in fact improve the symptoms of depression better than a placebo in their trials. Since the abstract was very succinct, this is the only statement made about the use of St. John's Wort in comparison to a placebo but I added it as another reference expressing the beneficial characteristics of this herbal remedy.

I could not find any studies that showed St. John's Wort as ineffective. They all proved it to be much more effective than a placebo and the majority of patients improved somewhat after four to eight weeks of taking the herbal remedy. Since the drug takes approximately four weeks to feel its full effects, the shorter trials are more likely to be inaccurate but to the extent that, given more time, probably even more of the patients would have shown an improvement.

**St. John's Wort versus other antidepressants**

De Smet (1996) also studied hypericum extract in opposition to standard synthetic antidepressants. In his study, he used "the comparator drug in daily amounts below or at the lower end of the usual dose range". All of these studies lasted less than six weeks and as De Smet noted that it takes at least two to four weeks of taking St. John's Wort for it to produce some noticeable effects. In this study, the beneficial effects of St. John's Wort appear to be equal to those of the prescription medications. These findings also suggest that the herbal medication may be safer than prescription antidepressants and cause patients to comply easier.

Linde, Ramirez etc. (1996) found the hypericum extracts to be as effective as standard antidepressants in helping alleviate depression. In this study, there were some trials that compared single hypericum preparations to standard antidepressants and some trials of combinations compared to the prescription antidepressants. In the single hypericum preparations, 63.9% of patients responded positively while 58.5% responded with the standard medication. In the combination trials, 67.7% responded to the hypericum extracts while only 50% responded to the synthetic drugs. The scores on the Hamilton depression scale were a little better in those patients that had taken the single preparation hypericum than those who took the synthetic drugs, once again proving that St. John's Wort is as effective as, if not more, than standard antidepressants.
In Ernst's study (1995), he too found that St. John's Wort is as effective as the standard antidepressants in the treatment of depression.

All studies seem to indicate that hypericum extract works as well as if not better than standard prescription antidepressants. I could not find any studies that contradicted this theory. All trials seem to point to the idea that St. John's Wort is the herbal equivalent of the synthetic antidepressants but without all of the negative side effects.

**St. John's Wort's side effects**

In De Smet's (1996) study, he found that there were minimal side effects after ingesting St. John's Wort. Fatigue was reported by only 0.4% of the patients, allergic reactions in 0.5%, and gastrointestinal symptoms in 0.6%. This is a very small amount of subjects to experience side effects. De Smet thinks that it's also possible that these side effects may be due to the photosensitizing effects that the drug has. He also notes that there is no published German literature that reports serious drug interactions or accidental death due to overdose. The study did not include information about later side effects nor did it assess whether there is a large risk of relapse.

In the Linde, Ramirez, etc. (1996) trials, they found similar results. They had 0.8% of the hypericum patients drop out due to discomfort from side effects while 3.0% of patients in the standard antidepressant groups withdrew due to side effects. The total drop out rates were 4.0% for the hypericum groups and 7.7% of the standard medication groups. The total number of reported side effects were 19.8% for the hypericum groups and 35.9% for the synthetic antidepressant groups. This last quote of side effects seems to contradict the rest of this study and the other studies as well. These percentages are much higher and it's possible that these are true but it's also possible that I misunderstood the article's description.

There were also patients in this study in the St. John's Wort versus placebo trials that withdrew because of side effects. Surprisingly, 0.4% withdrew in the hypericum groups while 1.6% of the placebo patients withdrew from the study. This is unusual since placebos shouldn't have side effects and yet more of the people in the control placebo group dropped out due to side effects of which there shouldn't have been any than the experimental hypericum groups.

In these trials by Linde, Ramirez, etc., the "classification of depression was not uniform and in some studies quite vague". They also noted that they did not perform a large number of trials and therefore cannot conclude their findings as the absolute truth. The observation periods were also rather short and there have been no studies on the long term side effects.

In the abstract by Nordfors and Hartvig (1997), there is simply a statement that says that the hypericum extract's side effects were rather mild and not as common as those of the standard
antidepressants. There is a more detailed description of this claim in the German journal Lakartidningen.

In Schmidt and Sommer’s (1993) study, they concluded that overall the patients tolerated the hypericum pretty well. The abstract does not tell how many people were included in this study but it states that only two subjects reported minor side effects when taking St. John's Wort.

Ernst (1995) mentions that due to the lack of side effects, it is a better drug in many cases than standard antidepressants.

The lack and rarity of serious side effects with St. John's Wort is one of it's major selling points. Without this inconvenience, hypericum perforatum has serious advantages over the synthetic drugs which often have very uncomfortable side effects.

Conclusion

St. John’s Wort, a historical plant used to help relieve many different types of health problems, is now becoming popular all over the world, particularly in the United States, as a natural method to help alleviate the horrifying feelings of depression. St. John’s Wort is an herbal outlet to the prescription antidepressants such as Prozac and Zoloft that have some very uncomfortable side effects. Meanwhile St. John’s Wort patients experience minimal to no side effects and those that are reported can easily be treated by either discontinuing the remedy or merely decreasing the dosage. The affordable price of this treatment is also very appealing to people. The rise of this plant’s popularity in the United States is due largely to the recent broadcast on 20/20 but all of these other incredible factors lead to the curiosity of depressed patients desperately seeking a miracle remedy.

The websites that provided me with this information seem fairly reliable. Some of them are, in fact, drug or vitamin companies trying to sell their products and give you their hard sell of how great St. John’s Wort is to attempt to interest you into trying some. One of the sites provided a written transcript of the 20/20 broadcast on June 27, 1997, which was more or less reliable. There were some doctors on the show, one of which has a book for sale, but information presented on 20/20 is generally pretty solid facts. One source was a man’s homepage who had tried St. John’s Wort and was preaching it’s benefits, which is a fairly decent source too because he didn’t have anything to sell but he is biased in his opinion. All in all, I think I received a pretty fair assessment of St. John’s Wort and it’s benefits, history, and future.

The research that I found in esteemed medical journals all said the same thing: St. John's Wort is an effective remedy for mild to moderate depression, proving more effective than placebos and equal to if not superceding standard synthetic antidepressants in alleviating the symptoms of depression. The lack of side effects makes this remedy a more logical choice for many patients and provides a natural way to solve some of the depression problems. Many people are more enthusiastic about taking a cheap,
effective, natural remedy that is sold over the counter than an expensive, prescription synthetic drug that is often accompanied by unbearable side effects. All in all, it looks as if St. John's Wort is a wonderful alternative medicine to the synthetic antidepressants.

Bibliography


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