

Herbal Medicine: Is it Really Safe?

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Herbal medicine is now considered a very popular form of remedy even though its therapeutic efficacy needs to be investigated. People from different cultures even in advanced nations like to use natural products rather than drugs and other pharmaceuticals. Nevertheless the public is often misled to believe that all natural treatments are inherently safe, herbal medicines do carry risks, so research in this area must be intensified. Most of natural products have a narrow therapeutic index which simply means that their health benefits less than toxicity exerted by other unknown ingredients. The major question that needs to be answered is how our bodies deal with all these ingredients in term of absorption, metabolism and chemical modifications which is unsolved problem in most herbal therapy judged from their adverse side effects and potential toxicity.

Most of the synthetic prescription drugs made today is based on naturally occurring substances and capabilities found in plants. There is a common misconception among consumers that because herbal remedies are “natural”, then they must automatically be safe to take. On contrast, many of natural products from plant species are poisonous and toxic to many organs. For instance, the Rhubarb plant is a nutritious vegetable, but the leaves from the Rhubarb plant, if eaten could cause someone to go into convulsions or possibly even die. This example reveals the importance of self-education when it comes to knowing which herbs are good or bad for you. Combinations of herbs can also negatively interact with each others. Taking a herbal supplement that boosts your energy for example, such as Ginseng or ephedra in large amounts could cause heart palpitations. If there herbs were taken while consuming large amount of caffeine, it would cause heart palpitations which can lead to much more serious problems and even a heart attack. Another example is Golden Seal which is a natural source of insulin, so if you take it while also taking insulin injections, you could accidentally overdose without even realizing it.

Another serious example is kidney stones. In most cases, natural lemon juice can be used to treat kidney stones. However, there is individual variation and it will not work for many cases. The most common type of kidney stone is a calcium stone - about 80% of people who get kidney stones get this type and the lemon juice works wonderfully to dissolve these types of stones. If however, you have kidney stones that are one of the other three types; the lemon juice remedy may not work for you at all.

Pragmatic Trials (PT) are designed to find out about how effective a treatment actually is in everyday practice; while explanatory trials are designed to find out whether a treatment has any efficacy, almost always compared with placebo under ideal conditions. PT answers questions about the overall effectiveness of an intervention, and cannot study the contributions of its different components. Is ethically correct to study that type of remedy? Advances in high-throughput experimentations have resulted in massive databases of genomic, proteomic and chemical data which in combination with efficient separation methods and powerful spectrometric methods for identification and structure elucidation can be used for identification of active compounds. A powerful and deep biological approach that integrates such large and diverse sources of information together actually needs to fully understand the pharmacological effects of natural products; and DNA microarrays may provide a suitable high-throughput platform for research and development of drugs from natural products. In conclusion, the significant problem for herbal medicine, that in general its interventions haven't been subject to rigorous study. Moreover, there is no information about exact mechanism of action and molecular targets for many of its ingredients. We just need to know all constituents, interactions, interventions, mechanism of action and toxicity profiles of herbal remedy before we safely use it.

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