

## **US study casts shadow over Ayurvedic drug**

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Guggul, an extract from the resin mukul myrrh (*Commiphora mukul*) tree, has been used for thousands of years by Ayurveda doctors in India to treat obesity and high cholesterol levels, but new research in the US says claims of the efficacy may have been exaggerated. In the first randomized clinical trial of a guggul extract guggulipid on a large group of patients outside India, neither a commonly used dose nor a high dose of standardized guggulipid showed any beneficial effects.

On the contrary, administering guggulipid increased levels of directly measured LDL-C (low density lipoprotein-cholesterol) by significant amounts and tended to depress levels of HDL-C (high-density lipoprotein-cholesterol).

The results of the research, conducted among others by Dr. Philippe Szapary, assistant professor of medicine at the Division of General Internal Medicine at the University of Pennsylvania, were published in the prestigious *Journal of American Medical Association*.

As part of the research, guggulipid was administered to 103 healthy individuals with hypercholesterolemia over an 18-month period in the Philadelphia metropolitan area. The patients 51 percent of them men, 80 percent of them white ate a typical Western diet during the research.

The overall favorable response rate [18 percent] in levels of LDL-C to guggulipid is markedly lower than what has previously been described in Indian populations, in whom the response rate ranges from 60 percent to 80 percent, the researchers said. The report noted that all previous clinical trials were conducted on Indian populations with dietary and genetic differences that could affect metabolism.

We found that in a typical American population of adults, with hypercholesterolemia and eating a typical Western diet, using the standardized guggulipid product did not reduce but actually raised LDL-C levels, the researchers said.

They also mentioned that not only was guggulipid ineffective in lowering cholesterol levels, it seemed to cause a hypersensitivity in a subset of patients.

However, Ayurveda doctors from India or those who know the system seemed skeptical about the findings. They said one needs to know how the extract was administered on patients by the researchers because often Ayurvedic medicine is given in combination with other Ayurvedic medicines for effectiveness.

Dr. Shekhar Annambhotla, who holds an MD in Ayurvedic Medicine from Gujarat Ayurveda University, Jamnagar, and is a former associate professor at the Maharishi Mahesh Yogi School of Medicine in the Netherlands, said the guggul extract has to be old and purified.

You cannot administer fresh extracts to lower cholesterol. This may have an adverse effect, he told India Abroad. Secondly, the guggul extract has to be purified by dipping it in milk so that all sediments and deposits are removed before it can be administered to patients, he said.

According to another expert, Dr. Hari Sharma, guggul has to be taken along with trifala (a herb used for the cure of allergies, constipation, digestive problems, obesity, et cetera) that purges the body of unwanted deposits.

So if they [the researchers] have not followed the proper procedure for administering the extract, and used fresh guggul extracts, it is possible for the cholesterol to go up, Annambhotla said.

Roberts Schneider, Dean, College of Maharishi Vedic Medicine, said traditionally, guggul is administered combined with other herbs. I am not aware of guggul ever used alone, he said. Using one product like guggul to treat an illness may lack synergism, Schneider told India Abroad.

Szapary, the lead researcher, when asked to react to the comments made by Ayurveda doctors, agreed. It is possible to give small doses of several medications together to get the desired effect. Guggul may work in combination with other plant extracts but I am not familiar with Ayurvedic practices, he told India Abroad.

Szapary said the way people take guggul in the US is different.

People go to a drug store to buy guggul as a dietary supplement because they have heard it reduces cholesterol, he said. They do not take it in combination with other plant extracts in the Ayurvedic fashion.

But what we were testing was not the Ayurvedic practice of medicine, but the efficacy of guggul as a dietary supplement in reducing LDL cholesterol.

Dr. Navin Shah, a founding member of the American Association of Physicians of Indian Origin, said while it is true that for many centuries Ayurveda has used guggul extract effectively for treating cholesterol and reducing obesity, the new research findings necessitate re-examination of the extract and the claims associated with it.

The bottom line is it is high time Indian scientists both here and in India conducted Western style scientific studies on guggul involving a large number of cases to authenticate their claims, Shah said.

Such a study has not been done to the best of my knowledge, he said. Ayurveda may be a better system for treating certain kinds of illnesses, but you need research and documentation to prove that it is better.