Researchers find high levels of toxic metals in herbal medicine products sold online

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Boston, MA--Researchers at Boston University School of Medicine (BUSM) have found that one fifth of both U.S.-manufactured and Indian-manufactured Ayurvedic medicines purchased via the Internet contain lead, mercury or arsenic. These findings appear in the August 27th issue of the Journal of the American Medical Association (JAMA).

Ayurveda is a form of medicine that originated in India more than 2,000 years ago and relies heavily on herbal products. In India, an estimated 80 percent of the population practices Ayurveda. In the United States, Ayurvedic remedies have increased in popularity and are available from South Asian markets, health food stores, and on the Internet.

Ayurvedic medicines are divided into two major types: herbal only and rasa shastra. Rasa shastra is an ancient practice of deliberately combining herbs with metals, minerals and gems. Ayurvedic experts in India believe that if Rasa Shastra medicines made with metals such as lead and mercury are properly prepared and administered, they will be safe and therapeutic.

Using an Internet search, the researchers identified 25 Web sites featuring 673 Ayurvedic medicines. They randomly selected and purchased 193 products made by 37 different manufacturers for analyses. Overall, 20.7 percent of Ayurvedic medicines contained detectable lead, mercury and/or arsenic. U.S. and Indian manufactured products were equally likely to contain toxic metals. Rasa shastra compared with non-rasa shastra medicines were more than twice as likely to contain metals and had higher concentrations of lead and mercury. Among products containing metals, 95 percent were sold by U.S. Web sites and 75 percent claimed Good Manufacturing Practices or testing for heavy metals. All metal-containing products exceeded one or more standards for acceptable daily intake of toxic metals.

"This study highlights the need for Congress to revisit the way dietary supplements are regulated in the U.S.," said lead author Robert Saper, MD, MPH, Director of Integrative Medicine in the Family Medicine Department at BUSM. Saper first published on this topic in December, 2004 (JAMA). In that study he and his colleagues found 20% of Ayurvedic medicines produced in South Asia only and available in Boston area stores contained potentially harmful levels of lead, mercury, and/or arsenic. "Our first priority must be the safety of the public. Herbs and supplements with high levels of lead, mercury, and arsenic should not be available for sale on the Internet or elsewhere," he said.

Saper adds, "We suggest strictly enforced, government mandated daily dose limits for toxic metals in all dietary supplements and requirements that all manufacturers demonstrate compliance through independent third-party testing."

"The medicines which are supposed to cure sickness should not promote another illness due to the presence of toxic materials such as lead," said co-author Venkatesh Thuppil, PhD, Director of the National Referral Centre for Lead Poisoning in India, as well as a Professor at St. John's Medical College in India.

Source: Boston University