

Adverse Events linked to alternative medicines in children

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Complementary and alternative medicines (CAM) can result in constipation, seizures and even death in children who take them to the exclusion of conventional medicine, according to a recent report surveying Australian pediatricians.

"This study describes a small case series of adverse events seen by pediatricians, the most worrying feature being the significant proportion of life-threatening and fatal reports, particularly in families using CAM to the exclusion of conventional medicine," said researchers from Royal Children's Hospital in Melbourne, Australia.

Infants and children with chronic illness were most at risk. Typically, they were given CAMs or put on restrictive diets instead of conventional medicine. Sixty four percent of the reported cases were classified as severe, life threatening or fatal. [*Arch Dis Child* 2010 doi:10.1136/adc.2010.183152]

A cohort of pediatricians from the Australian Paediatric Surveillance Unit completed monthly surveys on patient CAM use and reported outcomes between 2001-2003.

The final analysis included 39 questionnaires with 46 total reported adverse events including four deaths. Doctors were most concerned with patients who did not use conventional medications or failed to comply with a conventional medicine regime at the recommendation of CAM practitioners.

They also noted the dangers of dietary restriction as a method of disease control and that parents may falsely believe that a treatment is harmless if it is called "natural."

Of the reported deaths, one was of an 8-month-old who died of malnutrition and septic shock following a naturopathic rice

milk diet for "congestion." Another was of a 10-month-old with septic shock whose diet had been restricted and who was given homeopathic treatments for chronic eczema.

A third child with a history of seizures, including one with cardiorespiratory arrest, was treated with CAMs instead of anticonvulsants due to fear of side effects and died as a result of epilepsy.

The fourth was given CAMs instead of anticoagulants following a pulmonary emboli and died from pulmonary infarction complications.

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"Many of the adverse events associated with failure to use conventional medicine resulted from the family's belief in CAM and determination to use it despite medical advice," the researchers said. "These cases of significant dietary restriction are also examples of families who sought healthcare options firmly outside conventional treatments and thus presented late. Regulation of CAM practices may minimize practice risks by enforcing appropriate safety standards."

Other examples of CAM therapy resulting in poor outcomes included massage and fluid restriction for a cough resulting in dehydration and encephalopathy and naturopathy for diabetes and restricted insulin doses resulting in hyperglycemia.



Using CAM to the exclusion of conventional medicine may be harmful.

General reports of adverse events included valerian resulting in constipation, intramuscular vitamin injections resulting in leg pain and sciatic neuropraxia and crushed pearl resulting in acidosis.

"There are many studies showing that CAM may be associated with adverse events," said lead author Dr. Alissa Lim of the Department of General Medicine at the Royal Children's Hospital. "Any therapies may be associated with side effects and it is important that families consider both possible benefits and adverse effects when making treatment choices for their children."

The study was most limited by the sus-

picion of underreporting of adverse events within the monthly surveys, particularly if the events were being reported to another physician or to a CAM practitioner. The difficulty was compounded by frequent lack of data on brand names or product ingredients of CAMs.

The researchers noted the importance of distinguishing between CAM treatments that are associated with adverse events and adverse events as a result of forgoing conventional therapy for CAMs.

"We would recommend discussing any questions they may have about therapies with their treating doctors," Lim said. ■