Making snake-bite treatment safer

LOMA LINDA: An Inland doctor plans to describe a better antivenin at a gathering on rattlers.

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LOMA LINDA - Emergency room patients who feel snake-bitten by their reaction to antivenin are getting a dose of good news.

A Loma Linda University Medical Center physician says he will tell rattlesnake bite experts at a symposium here next weekend that a new serum - extracted from the blood of sheep - is sharply reducing the sometimes life-threatening reaction of his patients to antivenin.

Dr. Sean Bush, best known for his work on the cable television program "Venom ER," treats as many as 50 rattlesnake-bite victims a year at the Loma Linda hospital. Nationwide, as many as 10,000 people are bitten by venomous snakes each year.

In the past, Bush said, snake venom had been injected into the bloodstream of horses. When the animals developed antibodies to counter the poison, blood would be drawn and the antibodies concentrated to make serum for human bite victims.

One-fourth of bite victims injected with the horse serum developed immediate life-threatening reactions, Bush said, including a drop in blood pressure and difficulty breathing. As many as 75 percent of bite victims had milder delayed reactions, such as a rash.

The new sheep serum, called CroFab, was developed four years ago. Only about 30 of the 200 snake-bite victims Bush has treated with the serum had serious reactions immediately, he said, and a "negligible" number had delayed reactions.

Bush's report is likely to be welcomed by the more than 250 medical professionals, researchers and scientists expected to attend the four-day Biology of the Rattlesnakes Symposium beginning Jan. 15 at Loma Linda University.

The symposium, the first focusing on rattlers, is similar to symposiums held in Sweden in 2000 to study vipers and in Texas in 1989 to study pit vipers, said Dr. William Hayes, a biologist at Loma Linda University and chief organizer of the event.

"They get the latest updates from their colleagues and exchange ideas," Hayes said. "We think health professionals and nature lovers will benefit by attending."

Sessions range from the study of rattlesnake venom to a report on a procedure in which researchers surgically implanted devices in Mohave rattlesnakes to track their movements.

Bush said he hopes to counter a misunderstanding "that snakes are evil killing machines, like sharks. A snake is just an animal. A lot of what the conference will do is provide a forum to talk about the maternal behavior of rattlesnakes. The mother snake does not abandon her young. She hangs around to protect her young."

Hayes said he wants to help dispel myths.
"One that's closest to my heart is that lots of people in the general public believe baby snakes are more dangerous because they inject more venom," he said.

"In reality, they are definitely less dangerous."

Bush said Inland residents are safer because more local hospitals are stocking antivenin. That enables snakebite victims to be treated sooner.