Using Lasers to Treat Kidney and Liver Tumors

This is SCIENCE IN THE NEWS in VOA Special English. I'm Faith Lapidus.

And I'm Bob Doughty. Today, we will tell about a new cancer treatment and a study of the disease malaria. We will tell about the possibility of drier conditions in many populated areas. And we explain how cutting down on wasted food could lead to energy savings.

Doctors at the Mayo Clinic are using a process known as MRI-guided laser ablation to fight kidney and liver tumors. They are said to be among the first American doctors to use the process against the cancers.

Until now, doctors in the United States have used laser ablation mainly to treat tumors of the brain, spine and prostate.

Liver cancer is one of the most common cancers in the world. It is also the third leading cause of cancer death worldwide. Many liver cancer patients are too sick to survive traditional treatments, like chemotherapy and radiation. Even if they could, medical experts say these treatments only provide a small increase in life expectancy.

Eric Walser is an interventional radiologist with the Mayo Clinic in Florida. He was one of the first radiologists to use the MRI-guided laser ablation procedure to treat kidney and liver tumors. He says the process makes it possible for doctors to target and destroy tumors without damaging the rest of the organ.

Patients are placed inside an MRI machine. They are given a drug to keep them from moving during the procedure. A special needle is inserted directly into the tumor and light energy is passed through a laser.

The MRI machine can measure the temperature inside the tumor. Doctors are able to watch a monitor showing the temperature rising. When the tumor is heated to the point of destruction, the laser is turned off. The whole process lasts about two and a half minutes.