interpress
DAILY SABAH
HAFTADA 6 GÜN ULUS...
İSTANBUL
SİYASİ
Yayın Tarihi : 16.5.2022
Sayfa : 3
Medya Tiraj : 8588
StxCm : 119,23



# Ankara-based university develops portable electrocautery device

RESEARCHERS at an Ankara-based university have developed a rechargeable mobile electrocautery device that can help save lives by managing dangerous injuries everywhere, from construction sites to battlefields.

Electrocautery, or thermal cautery, is a procedure that uses heat from an electric current to destroy abnormal cell mass, such as a tumor or other lesion. It is often used to control bleeding during surgery or after an injury.

The mobile system developed by OSTİM Technical University, however, can prevent death and loss of limbs due to blood loss by providing on-site help.

Prior to developing the project, faculty member professor Sinan Kıvrak and his team carried out a study on the benefits of battery-powered portable cautery devices.

With valuable input from other faculty members and specialist surgeons in trauma surgery and emergency surgical interventions, they found that blood loss is the primary cause of preventable deaths in the prehospital period due to injuries on the battlefield as well as injuries in civilian life.

Physicians have long used cautery or burning the wound to stop bleeding on battlefields.

Electrocautery, in comparison, is frequently used in emergency rooms and in routine surgeries. It is generally used for cutting-opening tissues and sealing blood vessels.

The battery-powered, portable electrocautery devices will provide surgeons with the flexibility and opportunity to perform surgery in different places, even if there is no electricity.

It can increase the effectiveness of interventions for a large number of injured by decreasing death rates due to blood loss and the need for emergency blood supply.

In addition, there will be economic benefits such as reducing death and disability rates and reducing hospital stays.

PHOTOS BY AA

A researcher works on the mobile electrocautery device at OSTIM Technical University, Ankara, Turkey, May 13, 2022.

## PATENT APPLICATION FILED

Speaking to Anadolu Agency (AA), professor Kıvrak said most electrocautery devices are located in operating and emergency rooms.

"We studied those products and reverse engineered a mobile device that can work on-site," he said.

The 200-watt device can be used for two hours and can be easily charged like a mobile phone.

"The electrocautery device has been designed to do all the operations of the full-fledged devices in hospitals at the front line and mobile hospitals. We have already filed for the patents," he said.

He added the device could also be used by veterinarians.

So far, all the tests have been successful and the team is ready to produce at least 1,000 devices once the patent application goes through, Kıvrak said.

**ISTANBUL / DAILY SABAH WITH AA**

Researcher and professor Sinan Kıvrak holds the mobile electrocautery device developed at OSTİM Technical University, Ankara, Turkey, May 13, 2022.