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THE TABLET ON A STRING

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Cancer of the esophagus - a deadly disease and very insidious, since it is diagnosed, usually at a very late stage, when it is too late to do anything with the tumor. The solution became a tiny pill with attached to it a strong thread. Inside the shell is soluble black sponge, which scientists named Cytosponge.

In the stomach and dissolves liberated from the shackles of the sponge is straightened to its normal size. The physician carefully pulls the sponge through the esophagus and it collects with its cell walls, so that they can be investigated.

Even in the case of biopsy - not the fact that the experts will be able to 100-percent probability to detect cancer in a human patient. Non-invasive methods of collecting material for analysis - this is a very important achievement for oncologists, because survival in esophageal cancer is only 13%.

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POLYSTAT INJECTION

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The new drug, administered by subcutaneous injection, is able to save the lives of thousands of soldiers in a combat zone. Medicinal liquid developed by American scientists, contains the blood thickening polymer. The medicine can detect the subtle external or internal damage and acts instantaneously.

In the study on rats, after making a 3-millimeter cut in the femoral artery researchers found that over 50 percent of the rats died of bleeding out, as they didn't receive the polymer injection. While 100 percent of rats who received the polymer treatment – survived.

PolySTAT provides effective protection against natural enzymes that break down blood clots. Enzymes, which are normally involved in wound healing, do not touch the polymer connections in the bunch. This means that the clot will remain intact after the injury, which will buy time to complete the provision of medical care.

The scientists suggest that polymers could be used both in the emergency room and by paramedics in the field. Dr. Nathan White points that most of people die of bleeding before they even reach the medical facility, that is the main reason why PolySTAT could be of a great help. Besides, PolySTAT can also fight blood disorders that prevent forming clots. In the nearest future it is highly expected that the modification of this strategy could break down occurred clots during a stroke

It is noted that PolySTAT should not form clumps, which could clog blood vessels and cause a stroke. However, to confirm the complete safety of the drug required additional studies on larger animals.