Bacteria may halt pancreatic cancer's spread

WASHINGTON, USA: An experimental therapy that uses Listeria bacteria to infect pancreatic cancer cells and deliver tumour-killing drugs has shown promise in laboratory animal research, US scientists said on Monday (22 April).

While it remains unknown whether the method might work in people, researchers at Albert Einstein College of Medicine of Yeshiva University in New York said they are encouraged by the bacteria's ability to halt cancer's spread, known as metastasis.

"At this point, we can say that we have a therapy that is very effective for reducing metastasis in mice," said co-senior author Claudia Gravekamp, associate professor of microbiology and immunology at Einstein.

The experimental technique described in the "Proceedings of the National Academies of Science" works by using a weakened form of Listeria, which in its wild form can cause foodborne illnesses.

The data showed that 90% of mice with pancreatic cancer treated with the technique showed no evidence of cancer spread after three weeks.

Researchers halted the experiment after 21 days because that is when the control mice, who had pancreatic cancer but were not treated, started to die.

Pancreatic cancer tends to spread quickly through the body and is particularly lethal, since it is often discovered only once it has progressed beyond the pancreas.

Untreated patients usually die within three to six months, and the five-year survival rate is just four percent.

Researchers attached radioisotopes, commonly used in cancer therapy, to the bacteria. The radioactive bacteria then infected cancer cells but not normal cells.

The treatment stopped the cancer's spread in most cases and appeared to have no ill effects on the mice, but more work needs to be done to see if it may extend survival time.

"With further improvements, our approach has the potential to start a new era in the treatment of metastatic pancreatic cancer," said Gravekamp.

Gravekamp's team is the first to test the concept in an animal model.

Source: AFP via I-Net Bridge