New way of injecting drug allows double the number of patients to live beyond a year

Felicia Choo

An ongoing trial where the chemotherapy drug is injected directly into the abdominal cavity of patients with a particular type of stomach cancer has allowed more than two-thirds of them to live beyond a year.

The peritoneum is a large membrane in the abdominal cavity that connects and supports internal organs. After four rounds of the new treatment method, doctors no longer detected any cancer cells in her peritoneum. Her stomach, which was the remaining site of the disease, was then removed. “I’m really very happy,” said Madam Chew, who is still receiving chemotherapy orally and intravenously to prevent any recurrence.

Dr Yong Wei Peng, a senior consultant in NCIS’ division of haematology-oncology, said that injecting the drug directly into the peritoneum is more effective than giving it to the patient orally or intravenously.

“The potential benefit is that there are a lot fewer side effects because the drug is inside only the peritoneum cavity and you can have a very high concentration of the drug that is not possible if you give it by mouth or injection,” he added. Researchers had adapted the new treatment from one tested by Japanese researchers at The University of Tokyo that showed promising initial results, said Dr Yong.

The results of the trial in Singapore have spurred researchers to increase the total intake of patients from 40 to 60.

There are currently 49 patients involved in the trial, which started in 2016 and is expected to end next year.

Every year, around 500 people are newly diagnosed with stomach cancer and one-third of them suffer from the diffuse sub-type. Worryingly, the proportion of patients with the diffuse sub-type has been on the rise, said Dr Yong.

“Feasibility and safety trials are ongoing to assess the treatment response rate, compared with only 8 per cent for the second group. However, the response rate is not much higher than the current rates (when not using precision medicine), which range between 30 per cent and 40 per cent, said Professor Jimmy So, the head of NUH’s division of general surgery (upper gastrointestinal surgery).

The study is a collaboration between several local medical institutes and Yonsei University College of Medicine in South Korea. Researchers will next test precision medicine on tumours grown from cancer cells taken from patients, to see if the treatment is effective before giving this form of treatment directly to patients.

The study found that when using precision medicine, chemotherapy drug oxaliplatin worked better in patients with the intestinal sub-type than the diffuse sub-type, yielding a 45 per cent treatment response rate, compared with only 9 per cent for the second group.

“Dr Yong was also involved in another study that looked into the effectiveness of using precision medicine for stomach cancer. Precision medicine involves tailoring treatment based on a genetic understanding of a patient’s disease.”

Dr Yong Wei Peng, a senior consultant in NCIS division of haematology-oncology.

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Madam Cindy Chew, one of the trial's participants, with Professor Jimmy So (left), head of the National University Hospital's division of general surgery (upper gastrointestinal surgery), and Dr Yong Wei Peng, senior consultant in the National University Cancer Institute, Singapore. ST PHOTO: JASMINE CHOO