Chemotherapy before surgery can improve survival rates in pancreatic cancer patients

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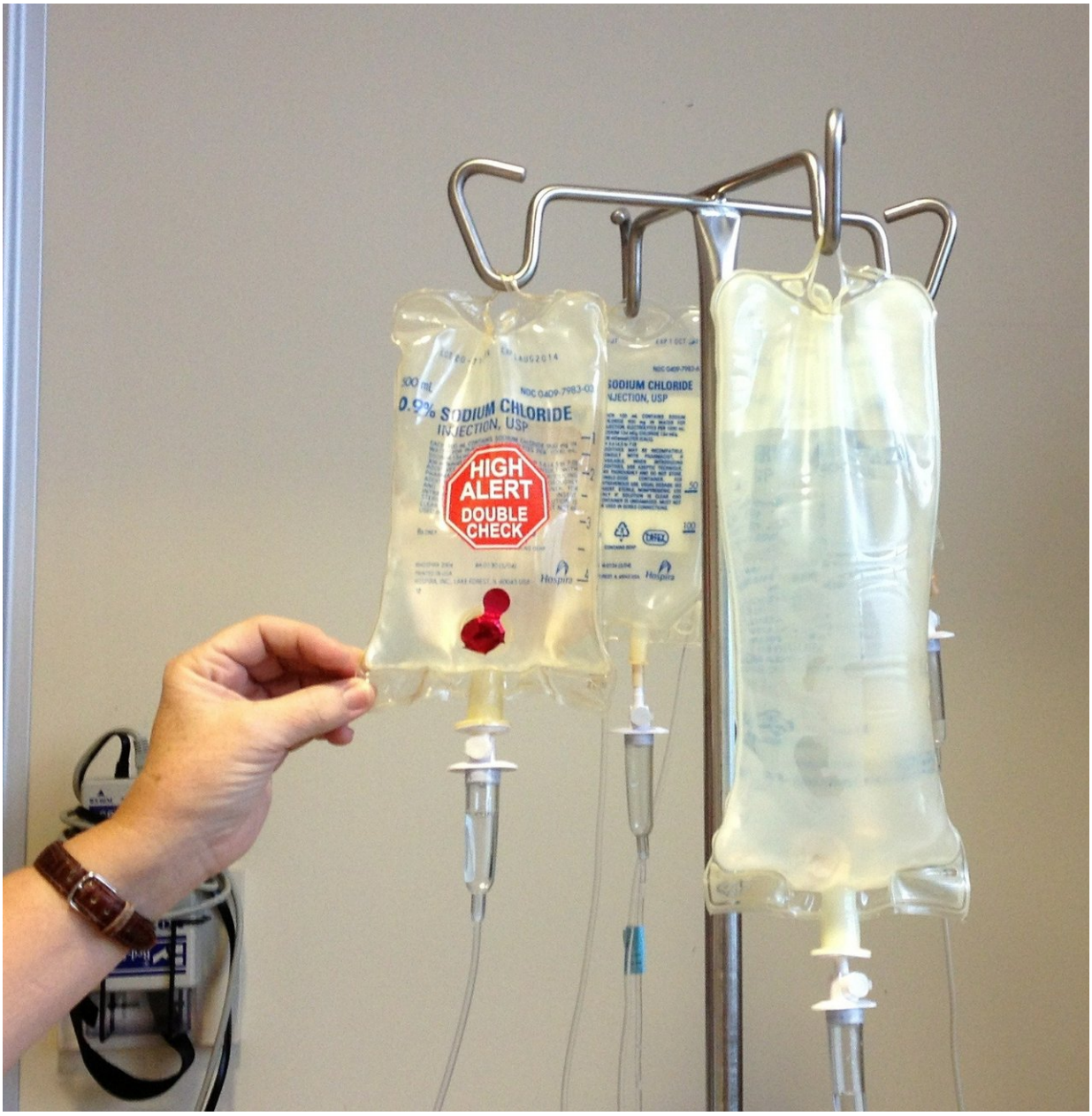

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Treating pancreatic cancer patients with chemotherapy before surgery significantly improved 1-year survival rates compared to immediate surgery, a randomized clinical trial has found.

Published in *The Lancet Gastroenterology & Hepatology*, the study was led by the University of Liverpool on behalf of the European Study Group for Pancreatic Cancer (ESPAC) and supported by Cancer Research UK.

Around 10,500 people a year in the UK are diagnosed with pancreatic cancer, but it has the lowest cancer survival rate, with around 9,000 dying every year.

Pancreatic cancer is a challenging cancer to treat, with surgery being the preferred treatment. When the cancer involves the local blood vessels (known as "borderline resectable" cancer), the possibility of surgical removal is less than 50% and the outcomes are poor. However, the use of chemotherapy or chemoradiotherapy before attempting surgery (neoadjuvant therapy) may increase the possibility of surgical removal and improve survival.

The ESPAC-5 trial aimed to compare the use of three different types of short-course neoadjuvant therapy versus immediate surgery in patients with borderline resectable pancreatic cancer, to see whether this approach could improve patient outcomes.

The team recruited 90 patients in the UK and Germany between 2014 and 2018 and randomly allocated them to the different treatment groups

and followed them up for 12 months.

Some patients had surgery as their first treatment, some had chemotherapy before surgery, and others had a combination of chemotherapy and radiotherapy (chemoradiotherapy) before surgery.

The researchers found that neoadjuvant therapy provided a significant survival benefit for patients. The 1-year overall survival rate was 84% for FOLFIRINOX, 78% for gemcitabine plus capecitabine and 60% for capecitabine-based chemoradiotherapy, compared to 39% for immediate surgery.

There was no significant difference in the rates of surgical removal between the surgery and neoadjuvant groups of patients, and the treatments were all well tolerated.

Professor Paula Ghaneh, who led the study at the University of Liverpool's Department of Molecular and Clinical Cancer Medicine, said, "Even though this was a feasibility study, these results provide compelling evidence for the use of short course neoadjuvant chemotherapy in borderline resectable pancreatic cancer. Future trials will focus on the type and length of neoadjuvant therapy in borderline pancreatic cancer. Further work will be needed to explore the role of neoadjuvant therapy in resectable pancreatic cancer."

Chief Executive of Cancer Research UK, Michelle Mitchell, said, "One of the quickest ways that we can beat cancer is by making more effective use of treatments that we already have at our fingertips. A growing number of studies are showing that giving some chemotherapy before surgery can radically improve quality of life for cancer patients.

"The ESPAC5 trial shows exciting new evidence that chemotherapy before surgery could benefit patients with pancreatic cancer, when it is

caught early enough. I am looking forward to further research which will boost the case for pre-operative chemotherapy to be used routinely in the NHS."

More information: Immediate surgery compared with short-course neoadjuvant gemcitabine plus capecitabine, FOLFIRINOX, or chemoradiotherapy, in patients with borderline resectable pancreatic cancer (ESPAC5): a four arm, multicentre, randomised, phase 2 trial, *The Lancet Gastroenterology & Hepatology* (2022). DOI: 10.1016/S2468-1253(22)00348-X

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