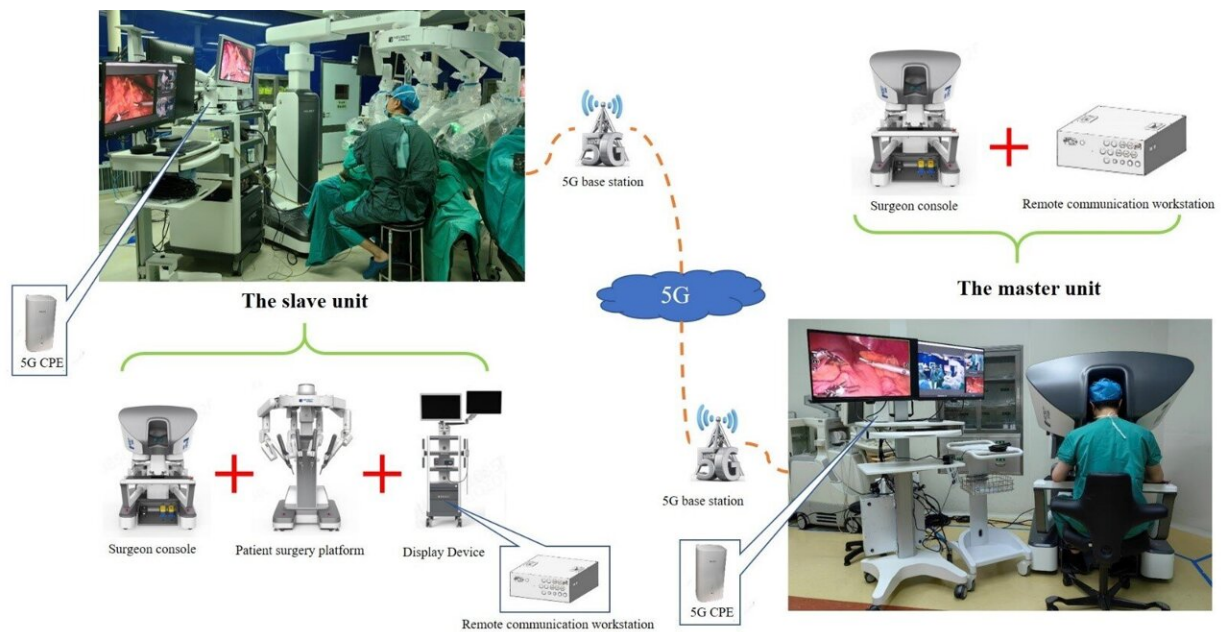


5G-enabled robotic surgery: A new era in gastric cancer treatment

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Network configuration and remote surgery platform. Credit: Qun Zhao, et al.,

Globally, gastric cancer is the fifth most common malignancy and the fourth leading cause of cancer-related death, with China bearing nearly half of these cases. These figures underscore an urgent need for innovative solutions in the field, particularly given the huge disparities in access to diagnostic and treatment resources in remote and underserved areas.

In a study recently [published](#) in *Intelligent Surgery*, a team of researchers from China reported the first robot-assisted remote radical distal gastrectomy performed using 5G communication technology. While previous studies have demonstrated the effectiveness of 5G technology in various fields, such as urology and orthopedics, its application in gastric [surgery](#) has so far been limited to preclinical trials on animals and cadavers.

The [novel procedure](#) was conducted on a 51-year-old patient diagnosed with stage T2N0M0 gastric cancer, utilizing the domestically developed Tuomai four-arm laparoscopic robotic surgery system. Notable results include minimal intraoperative delays and no packet loss, highlighting the potential of 5G technology to advance remote surgical procedures. The patient's quick recovery without complications affirmed the procedure's safety and effectiveness.

Professor Zhao, the lead researcher of the study, states, "This is the initial clinical experience of this new technology, and preliminarily verified the feasibility and safety. We believe that the findings from this study lay a solid foundation for the future of telemedicine in treating patients with [gastric cancer](#)."

More information: Honghai Guo et al, Pioneering case: Robot-assisted remote radical distal gastrectomy for gastric cancer based on 5G communication technology, *Intelligent Surgery* (2024). [DOI: 10.1016/j.isurg.2024.01.004](#)

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