Medical Xpress

Review covers progress in immunotherapy for esophageal cancer

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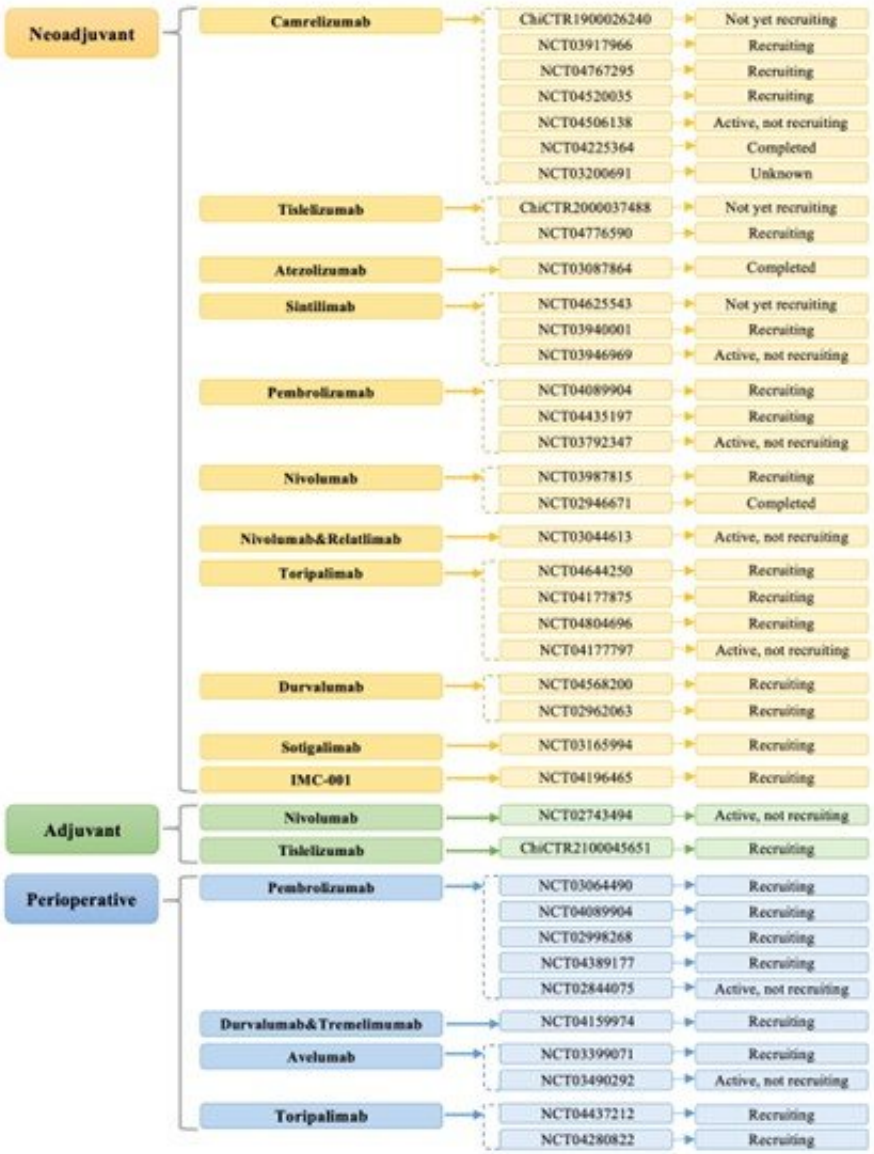

Multiple ongoing clinical trials are being conducted to test the potential of ICIs as an adjuvant therapy for resectable esophageal cancer. The results of these trials could cement ICI-based immunotherapy as the new standard systemic treatment option for esophageal cancer. Credit: Hecheng Li of Department of Thoracic Surgery, Ruijin Hospital Affiliated to Shanghai Jiao Tong University School of Medicine

Esophageal cancer (EC) is one of the most common types of cancer worldwide and was ranked as the sixth leading cause of cancer-related deaths in 2020. When EC is localized or locally advanced, referred to as resectable EC, surgery is usually the preferred option. Despite the tremendous progress in surgical techniques, surgery alone is usually not the best choice for advanced resectable EC due to the likelihood of tumor regrowth.

Hence, it is recommended to combine surgery with a systemic neoadjuvant or adjuvant treatment, i.e., an additional supporting treatment. The standard systemic treatment options for resectable EC include chemoradiotherapy and chemotherapy. However, over the past decade, scientists have seen many breakthroughs in cancer immunotherapy—a fundamentally different type of treatment, in which the host's immune system is enabled to fight cancer cells effectively.

Today, one of the most promising strategies in this field is to use immune checkpoint inhibitors (ICIs). The blocking of immune checkpoints that keep the body's immune response in check with ICIs enables T cells to attack cancer cells with greater efficacy.

Against this backdrop, a team of researchers led by Professor Hecheng Li of Ruijin Hospital affiliated to Shanghai Jiao Tong University School of Medicine, China, recently published a literature review on the topic of immunotherapy for EC. This review, which was published in the *Chinese Medical Journal*, summarizes the latest data from clinical trials where ICIs are being used alongside surgery in resectable EC.

"Our review aims to provide a reference for the ongoing research of the treatment options for this disease," explains Dr. Li.

Currently, there are many ongoing clinical trials to test whether ICIs combined with standard approaches, such as chemoradiotherapy, can lead to better outcomes. In this review, these trials were classified as neoadjuvant (before surgery), perioperative (around the time of surgery), and adjuvant (after surgery). Neoadjuvant ICI therapy is by far the most popular one out of the three, and there are several ongoing trials for at least 11 different drugs.

According to the team, the R0 resection rate in all the trials was satisfactory, implying that no cancer cells could be detected microscopically at the tumor site after surgery for many patients. Despite this, there are some key challenges and limitations that need to be overcome. One is the incidence of treatment-related adverse events, which were reported in all trials.

The other is that most clinical trials are still in phase II or have just entered phase III.

Phase II trials have a small sample size and sometimes lack a control group, whereas phase III trials are multi-center studies that involve hundreds or thousands of people and compare a new treatment with the current standard. Additionally, most trials were confined to patients from a single country, implying that these results may provide reference values for certain populations only. The authors of the review thus highlight the need for multinational initiatives.

Only time will tell how effective immunotherapy truly is as a supporting treatment for resectable EC. Dr. Li is confident that this type of therapy will eventually find its way to the top once the key challenges are addressed. "Undoubtedly, the recent satisfactory outcomes of immunotherapy for resectable EC offer hope for a breakthrough, but the deficiencies still need to be conquered. Prompt solutions to these concerns will perfect ICIs treatment for resectable EC with reliable

effect and good safety in the coming days," he concludes.

More information: Yan Yan et al, Treatments for resectable esophageal cancer: from traditional systemic therapy to immunotherapy, *Chinese Medical Journal* (2022). DOI: 10.1097/CM9.0000000000002371

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