

A Basic and Clinical Perspective on the Future of Perioperative Therapy for Gastric Cancer

Jiang Chen^{1,2,*}, Dan G. Duda¹, Aya Matsui^{1,3}, Hiroto Kikuchi^{1,4}, Kazumichi Kawakubo¹, Shuji Kitahara^{3,*}

¹Edwin. L. Steele Laboratories for Tumor Biology, Department of Radiation Oncology, Massachusetts General Hospital and Harvard Medical School, Boston, MA 20114, USA

²Department of General Surgery, Sir Run Run Shaw Hospital, Zhejiang University, Hangzhou, China

³Department of Anatomy, Tokyo Women Medical University, Tokyo, Japan

⁴Department of Surgery, Keio University, Tokyo, Japan

Abstract

The curative approach to advanced gastric cancer treatment is surgical resection. But the risk of relapse after resection in this disease remains high. To address this, multiple perioperative local and systemic therapies have been tested in patients with operable gastric adenocarcinomas over the last two decades. However, while the roles of neoadjuvant and adjuvant therapies have been evolving over the last two decades, many unanswered questions remain. Here, we first discuss the scientific rationale for these interventions. Next, we review the current progress, and offer a perspective on potential approaches that may be useful in the perioperative setting in advanced gastric cancer.

Key words: perioperative therapy, gastric cancer, adjuvant therapy, combination therapy, antiangiogenic therapy, immune checkpoint blockade