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Adjuvant Chemotherapy for Gastric Cancer with Microsatellite Instability

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Introduction

An increased rate of uncorrected replication errors at the simple repeat sequence caused by a DNA mismatch repair gene (MMR) defect is known as microsatellite instability (MSI). Oncogene and tumor suppressor gene mutations are accelerated and the phenotype of hyper mutational status is present in MSI-high (MSI-H). MSI-H carcinogenesis may result in the production of tumor-specific neopeptides. It has been demonstrated that lymphocytes play a role in preventing tumor metastasis in MSI-H colorectal cancer. The immunologic aspect of MSI status has recently been highlighted as an immunotherapy-predictive marker. Immunotherapy has been shown to be beneficial for MSI-H tumors and the FDA has finally approved pembrolizumab, an anti–programmed death-1 antibody, for the treatment of MSI-H tumors of any type.

Discussion

When compared to the non-Hispanic White (NHW) population in the United States, the incidence and mortality rate of gastric cancer in the AN population are three times higher. The overall 5-year survival rate for a patients is less than 20% and they are frequently diagnosed with advanced disease. The etiology of gastric cancer is different in the AN and NHW populations. Gastric cancers are typically found in the cardia, gastroesophageal junction, or distal esophagus in NHW patients, whereas in AN patients, they are more common in the central and distal stomachs. In addition, there are differences in the tumor subtypes of the two populations, with the diffuse subtype being more prevalent in AN patients. The members of the committee rethought the new edition's concept and style prior to beginning the editing process. The members of the JGCA all participated in a survey about the format of the new treatment guidelines and the results showed that they preferred the traditional textbook style. However, the Medical Information Network Distribution Service (MINDS), which has established a clear definition of the guidelines and created and made public standard methodology for their compilation, has a significant impact on the current trend of guideline editing that can be seen in guidelines for other types of cancer. As a result, the members of the committee developed a number of pertinent Clinical Questions (CQ) and attempted to provide comprehensive responses, including explanations of the levels of evidence and the weight of the recommendations. The current members of the committee attempted to incorporate the methodology that was established by the MINDS, in addition to adhering to the philosophy of our senior members who compiled the first edition, which was the first of the cancer guidelines issued in Japan. Subsequently, there may be more radical changes in the design and style in the impending modification.

Several studies have demonstrated that gastric microbial dysbiosis associated with GC can frequently be detected in gastric biopsies4, including members of the Proteobacteria, Firmicutes, Actinobacteria and Fusobacteria phylas. A major risk factor for GC is specifically recognized as chronic Helicobacter pylori infection, which results in mucosal inflammation and histological changes. However, the fact that only 3% of people with H. pylori develop GC suggests that other factors play a significant role in gastric tumorigenesis. Antimicrobial treatment delayed the onset of gastric neoplasia in H. pylori-infected and uninfected insulin-gastrin (INS-GAS) mice, whereas normal intestinal microbiota accelerated the process. In addition, compared to germ-free mice, H. pylori-free INS-GAS mice with intestinal microbiota developed GC more rapidly. These results point to the possibility that other microbes, in addition to H. pylori, are involved in the development of gastric cancer [1-3].

By sequencing the bacterial 16S rRNA gene, it is now possible to conduct a comprehensive analysis of the gastric microbiota thanks to advancements in sequencing technology. The stomach's microbial communities are much more diverse, according to molecular analyses. More than 130 phylotypes, ranging from seven to thirteen bacterial phyla, are contained within it. Proteobacteria, Firmicutes, Bacteroidetes, Actinobacteria and Fusobacteria are the significant phyla in the gastric microbiota. Proteobacteria, Streptococcus and Prevotella were the most common phyla and genus found in H. pylori-negative subjects' stomachs. The pieces of gastric microbiota from gastric antrum and corpus are almost indistinguishable. In the first week of life, Firmicutes, Tenericutes, Actinobacteria and Proteobacteria made up the majority of the bacteria in preterm neonates' gastric juice. However, the abundance of Proteobacteria steadily increased, eventually becoming the predominant bacteria by the fourth week of life. In recent years, it has been investigated whether the numerous and diverse gastric microbiota play a role in the pathogenesis of gastric diseases [4,5].

Conclusion

There are currently several approaches being developed for the surgical treatment of morbid obesity and gastric cancer. For the proper interpretation of imaging studies in patients who undergo gastric surgery, precise knowledge of these surgical procedures, normal postoperative anatomy, significant complications and potential imaging pitfalls is necessary. Consequently, radiologists ought to possess this practical knowledge and comprehend the imaging modalities that can be utilized to make a correct diagnosis.

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Conflict of Interest

There are no conflicts of interest by author.

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References

1. Kordan, Yakup, Daniel A. Barocas, Hernan O. Altamar and Peter E. Clark, et al. "Comparison of transfusion requirements between open and robotic-assisted laparoscopic radical prostatectomy." *BJU international* 106 (2010): 1036-1040.
2. Laurila, Timo AJ, Wei Huang and David F. Jarrard. "Robotic-assisted laparoscopic and radical retropubic prostatectomy generate similar positive margin rates in low and intermediate risk patients." *BJU international* 27 (2009) 529-533.
3. Philippou, Prodromos, Elizabeth Waine and Edward Rowe. "Robot-assisted laparoscopic prostatectomy versus open: comparison of the learning curve of a single surgeon." *J Endourol* 26 (2012): 1002-1008.
4. Wang, Rou, David P. Wood Jr, Brent K. Hollenbeck and Amy Y. Li, et al. "Risk factors and quality of life for post-prostatectomy vesicourethral anastomotic stenoses." *Urology* 79 (2012): 449-457.
5. Krambeck, Amy E., David S. DiMarco, Laureano J. Rangel and Eric J. Bergstralh, et al. "Radical prostatectomy for prostatic adenocarcinoma: a matched comparison of open retropubic and robot-assisted techniques." *BJU international* 103 (2009): 448-453.

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