

Different classification and treatment of gastric cancer.

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Received: 26-Oct-2022, *Manuscript No. AAJCIT-22-78292*; **Editor assigned:** 28-Oct-2022, *AAJCIT-22-78292 (PQ)*;

Reviewed: 11-Nov-2022, *QC No. AAJCIT-22-78292*; **Revised:** 15-Feb-2023, *Manuscript No. AAJCIT-22-78292 (R)*;

Published: 22-Feb-2023, *DOI:10.35841/AAJCIT.6.2.137*

Introduction

Sporadic Gastric Cancers (SGCs): The bulk of GC cases is sporadic and primarily impact adults over 45. "Sporadic Gastric Cancers" (SGCs) are the name given to these carcinomas. They frequently result from the concurrence of numerous environmental elements. Males are two times more likely to be impacted than females, particularly in high risk nations and they often occur between the ages of 60 and 80 [1,2].

Early Onset Gastric Cancer (EOGC): EOGC, which includes around 10% of GCs, is defined as GC before the age of 45. Genetic factors appear to be causative in EOGCs. These tumours usually have several foci, are diffuse and are more common in women than in men, most likely because to hormonal influences. At the molecular level, SGC and EOGC differ as well. However, aside from instances of inherited GC, the pathophysiology of EOGC is still unknown [3].

Gastric Stump Cancer (GSC): A carcinoma that develops in the gastric residual at least five years after peptic ulcer surgery is referred to as Gastric Stump Cancer (GSC), a distinct subtype of Gastric Cancer (GC). GSC account for 1.1% to 7% of all GCs and men are more likely than women to develop them. Even many years after the initial operation, gastroplasty is a known risk factor for GSC. After 15 years following the gastrectomy, the risk of GSC is four to seven times higher than it would be in a healthy population. Compared to entire stomachs, gastric leftovers are more frequently infected with EBV. The p⁵³ protein and the virus might collaborate. H. pylori infection, however, is less common in GSCs.

Description

Hereditary Diffuse Gastric Cancer (HDGC): Majority of GC instances are sporadic, but familial clustering is seen in 5%-10% of cases. Concerning 1%-3% of all GCs, HDGC exists. Germline mutations in the CDH1 gene, which codes for E-cadherin, are one of the hereditary disorders that lead to HDGCs. These disorders, which are autosomal dominant, result in diffuse, poorly differentiated GC that infiltrates the stomach wall and thickens it without forming a discrete mass [4].

- SGCs make up 80% of all GCs. They mostly affect elderly men who are from high risk areas and have been exposed to risk factors in the environment.
- EOGCs account for 10% of gastric cancer cases. They most usually affect women and start around the age of 45.

- GSCs account for 7% of gastric cancer cases. Dysplasia usually precedes them. After a gastrectomy, the risk of them increases over time.
- HGDCs account for 3% of gastric cancer cases. They are passed down by an autosomal dominant CDH1 gene mutation.

Pathological classification: GC can be categorised as an adenocarcinoma, a signet ring cell carcinoma or an undifferentiated carcinoma, under world health organization standards. It is not as popular as the Lauren classification, which recognises the intestinal and diffuse kinds as the two main GC subtypes. There are both microscopic and macro variations in the Lauren classification. Intestinal kinds of GC are thought to be linked to intestinal metaplasia and chronic atrophic gastritis, whereas diffuse types come from healthy gastric mucosa. Between nations and continents, there are different ratios of intestinal and diffuse kinds. Currently, intestinal type is more prevalent in European nations. The diffuse type predominates in patients under 30. The Lauren's histological subtype of GCs determines the size of the surgical resection [5].

Treatment: It is required to use a multidisciplinary approach while designing the GC treatment. At a minimum, a surgeon, pathologist, gastroenterologist and medical and radiation oncologists should be members of the Multidisciplinary Team (MDT). When a cure is the goal, the surgery entails a typical D2 lymphadenectomy and complete resection. The regional lymphadenectomy was established in 1998 by the Japanese Gastric Cancer Association (JGCA) based on the tumor's location and the corresponding regional node drainage. Around the stomach, sixteen distinct lymph node stations have been identified. N1 refers to the lymph node stations along the stomach's lesser curvature (stations 1, 3 and 5) and greater curvature (stations 2, 4 and 6).

Conclusion

Patients taking preoperative chemotherapy showed an improvement in overall survival in two randomised studies. As a result, this type of treatment is frequently carried out in Europe and entails three rounds of chemotherapy prior to surgery and three cycles following it. It frequently develops after a long standing precancerous lesion and seems to happen more frequently in high risk regions of the distal stomach.

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