

## Management of Cancer in the Digestive System

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**Abstract.** Cancer is a non-communicable disease characterized by the presence of abnormal cells/tissues that are malignant, grow quickly and uncontrollably and can spread to other places in the patient's body. Cancer cells are malignant and can invade and damage the function of the tissue. Digestive cancer, also called gastrointestinal cancer, attacks the organs of the digestive system. Digestive cancer also includes gastrointestinal cancer, liver cancer, stomach cancer, colorectal cancer, and pancreatic cancer. Risk factors for digestive cancers are varied because many different organs can be affected. Some factors that contribute to cancer throughout the digestive system include age, heavy drinking (alcohol), smoking, and diabetes sufferers. This type of liver cancer is cancer that grows in liver cells. Liver cancer is a type of cancer that ranks second as the cancer that causes the most deaths in the world. Gastric cancer is a group of malignant diseases that have multifactorial causes, namely genetic, lifestyle and environmental factors. The symptoms caused by stomach cancer are initially not as typical as the symptoms of general digestive complaints. The diagnosis of colorectal cancer can be carried out in stages, including through an appropriate history, physical examination, and supporting examinations in the form of laboratory examinations, both from clinical laboratories and anatomical pathology laboratories. The etiology of colorectal cancer is currently still unknown. Symptoms of colorectal cancer are varied and non-specific. The main complaints of patients with colorectal cancer relate to the size and location of the tumor. Tumors in the right colon, where the contents of the colon are fluid, tend to remain hidden until they are very advanced.

**Keywords :** cancer, digestive system, management

## INTRODUCTION

The digestive system is the part of the human body that functions to digest and process food. The anatomy of the digestive system consists of several body organs, consisting of the esophagus, stomach, duodenum, large intestine, anus, liver, spleen and pancreas. Symptoms of cancer in these organs are often mistaken for digestive disorders. Because the digestive system consists of many organs, the types of cancer that are often experienced also vary. The digestive system consists of the esophagus, stomach, duodenum, large intestine, anus, liver, spleen and pancreas. Symptoms of cancer in these organs are often confused with digestive disorders. Be aware of 5 cancers that attack the digestive system. Cancer is a dangerous and deadly disease.

When talking about cancer, most people worry more about breast cancer, cervical cancer and prostate cancer. In fact, there is a dangerous type of cancer that is rarely known to the public, namely cancer of the digestive system. Unlike breast, cervical or prostate cancer, digestive system cancer can be experienced by everyone, both men and women. The number of cases has continued to increase over the last 30 years and is ranked third in cancer that frequently attacks humans. "The digestive system consists of the esophagus, stomach, duodenum, large intestine, anus, liver, spleen and pancreas. Symptoms of cancer in these organs are often confused with digestive disorders. "Finally, many patients are only diagnosed after their cancer has reached an advanced stage," said Dr. Fajar Firsyada, SpB-KBD, surgical specialist and digestive surgery consultant at Dharmais Cancer Hospital in a Cancer Education event for the Community. Because the digestive system consists of many organs, the types of cancer that are often experienced also vary. In general, gastrointestinal cancer can be resolved if it is caught early through a colonoscopy. The earlier the diagnosis, the more likely you are to be an ideal candidate for less invasive treatments such as laparoscopic or robotic surgery. This type of surgery offers a quicker recovery than large incision surgery, a lower risk of infection, less pain, and a shorter hospital stay.

## **RESEARCH METHOD(S)**

The method used in writing this article is a review of research results related to complementary therapy in knowing the causes, factors, symptoms and ways to treat cancer in the digestive system. Literature review or literature study is research that examines or critically reviews knowledge, ideas or findings contained in a body of academic-oriented literature, and formulates its theoretical and methodological contributions to a particular topic. Literature review is research that critically reviews ideas, knowledge or findings contained in a body of academic-oriented literature and formulates theoretical and methodological contributions to a particular topic. Secondary data is the data used in this research, through several journals related to the 5 types of cancer found in the digestive system.

## **FINDINGS AND DISCUSSION**

### **1. Gastrointestinal cancer**

Gastrointestinal (GI) cancer is the uncontrolled growth of abnormal cells (cancer) in the digestive tract and other abdominal organs. There are several types of GI cancer,

including cancers of the esophagus, stomach, pancreas, small intestine, colon, rectum, and anus. Each cancer is different and requires specific treatment. Common symptoms of cancer that affect your digestive tract do not necessarily indicate that you have cancer. It is important that you get the right diagnosis and treatment, especially if you experience the following symptoms continuously over a period of time.

- a. Stomach ache
- b. Fullness in the upper abdomen after eating a small meal. Stomach ulcers or indigestion
- c. Nauseous
- d. Poor appetite
- e. Vomit
- f. Unexplained weight loss

In the United States, stomach cancer is more likely to start at the gastroesophageal junction. This is where the long tubes meet that carry the food you swallow to your stomach. The tube that carries food to the stomach is called the esophagus.

The location of the cancer in the stomach is one of the factors that health care providers consider when creating a treatment plan. Other factors may include the stage of the cancer and the type of cells involved. Treatment often includes surgery to remove stomach cancer. Other treatments may be used before and after surgery.

Stomach cancer treatment is most likely to be successful if the cancer is only in the stomach. The prognosis for small stomach cancer sufferers is quite good. Many can hope to be cured. Most stomach cancers are discovered when the disease is advanced and there is little chance of cure. Gastric cancer that grows through the stomach wall or spreads to other parts of the body is more difficult to cure.

## **2. Heart Cancer**

Liver cancer or liver cancer is the growth of abnormal tissue in the liver, which mutates and forms a tumor. This type of cancer is more common in Asia than in Western countries. In general, liver cancer is divided into two types, namely:

- a. Primary liver cancer.

Occurs when a tumor grows from liver cells. In general, this type of liver cancer occurs as a result of complications from other liver diseases such as hepatitis or cirrhosis. The diagnosis of primary liver cancer itself is stated based on the type of cancer cells that develop:

The main cells in the liver are called hepatocytes. Cancer that grows from these cells is called hepatocellular carcinoma or hepatoma. The cells that line the bile ducts are called cholangiocytes. Tumors in these cells are called cholangiocarcinoma or bile duct cancer.

b. Secondary liver cancer.

Occurs when cancer initially grows in another organ in the body, and spreads to the liver, which is called "metastasis". The most common spread comes from stomach cancer, colon cancer, lung cancer and breast cancer. Symptoms of liver cancer usually only become clear at an advanced stage. One in three patients does not show signs of liver cancer from the start. Therefore, the symptoms of liver cancer can be different for each patient. However, some of the general symptoms that appear are usually not much different from other chronic liver diseases such as:

- i. Pain in the stomach or liver (upper right abdomen).
- ii. Yellowing of the skin and eyes or also called "jaundice".
- iii. Swelling of the stomach due to fluid (ascites).
- iv. Swelling of the liver.
- v. Nausea, vomiting and fatigue.
- vi. Easily bruises or bleeds.
- vii. Back pain.
- viii. Feeling like your stomach is full even though you only eat a little.
- ix. Weight loss.

The patient's condition and the stage of liver cancer suffered will greatly determine the choice of liver cancer treatment. Alternative treatments and treatments for liver cancer include:

- i. Chemotherapy to kill cancer cells. This liver cancer drug can be given by injection into a vein or it may be injected directly into the area of liver cancer in a process called chemoembolization. At the same time, a gel can be injected to block blood flow to the cancer.
- ii. Liver transplant, which involves removing the entire liver and replacing it with a healthy liver from a donor. This can only be done if a liver donor is available.
- iii. Radiation therapy (high energy X-rays) to kill cancer cells or stop their spread.
- iv. Surgery called liver resection to remove the affected part. It can cure early stages of liver cancer if the rest of the liver is still healthy.

- v. Targeted therapy that only affects certain cells, with the aim of stopping cancer growth and spread, or to reduce blood flow to cancer cells.
- vi. Tumor ablation (erosion) to directly destroy liver cancer cells directly with heating or alcohol.

### **3. Gastric cancer**

Stomach cancer, also called gastric cancer, is a disease caused by abnormal tissue growth in the stomach. Stomach cancer usually begins with the development of abnormal cells that form tumors and become malignant cancer cells, then spread through the stomach wall. There are several types of stomach cancer, including:

- a. Adenocarcinoma, which attacks the cells lining the inside of the stomach.
- b. Carcinoid tumors, which attack hormone-producing cells in the stomach.
- c. Gastrointestinal Stromal Tumor
- d. Tumor (GIST), which attacks the connective tissue or muscles of the abdominal wall.
- e. Gastric lymphoma, which attacks immune cells in the stomach wall.
- f. Squamous cell carcinoma, small cell carcinoma, and leiomyosarcoma (LMS), which are relatively rare.

Symptoms of stomach cancer are generally not visible when the cancer is still in its early stages. However, when the cancer starts to grow to an advanced stage, there are several characteristics of stomach cancer that begin to become clear. The following are symptoms of stomach cancer:

- a. Chronic stomach ache.
- b. Loss of appetite.
- c. Losing weight without knowing the cause.
- d. Bloating and frequent belching.
- e. Feel full quickly.
- f. Pain in the sternum.
- g. Feel tired quickly.

Stomach cancer that has entered an advanced stage will show more severe symptoms of stomach cancer, including:

- a. Vomiting blood.
- b. Black stools, which indicates bleeding.
- c. Swelling of the stomach.

d. Lack of blood (anemia).

Treatment for gastric cancer basically depends on the patient's condition and the stage of the cancer. There are several treatment options for gastric cancer and it is not uncommon for doctors to recommend a combination of several treatments at once to get maximum results. Stomach cancer treatment procedures include:

- a. Surgery or surgery, to remove cancer tissue from the stomach or to reduce complications from the tumor if the cancer is in the final stage. This means removing part or all of the patient's stomach, depending on the spread of the cancer.
- b. Chemotherapy, by administering chemical drugs to kill cancer cells. Chemotherapy can be done before surgery with the aim of reducing the size of the cancer cells so they can be easily removed. Chemotherapy is also usually combined with radiation therapy after surgery or to reduce symptoms if surgery cannot be performed
- c. Radiation therapy or radiotherapy, uses X-rays to kill cancer cells. Radiotherapy can be performed before or after other treatment procedures. Radiotherapy performed before surgery aims to reduce the size of the cancer, while radiotherapy after the surgical procedure is carried out with the aim of killing the remaining cancer cells.
- d. Targeted therapy, to block the growth and spread of cancer cells. Usually combined with chemotherapy. In late-stage gastric cancer, treatment is focused on reducing symptoms, so that the patient feels more comfortable

By understanding the risk factors that cause stomach cancer, there are several steps you can take to prevent stomach cancer or reduce the risk, for example:

- a. Avoid or stop smoking and consuming alcohol.
- b. Avoid smoked and processed foods.
- c. Adopt a healthy diet to meet the body's nutritional needs, including vegetables and fruit that are not too acidic.
- d. Exercise regularly to maintain weight.

#### **4. Colorectal cancer**

Colorectal cancer can include colon cancer and/or rectal cancer. Colorectal cancer is caused by abnormal growth in the colon (the longest part of the large intestine) or the

rectum (the final part of the large intestine before the anus). Most colorectal cancers start as colorectal polyps, either intestinal polyps or anal polyps. These polyps are actually benign or noncancerous, but some polyps can experience DNA mutations so that they develop abnormally and become cancerous. The possibility of developing cancer from colorectal polyps depends on the type of polyp itself, which can be divided into:

- a. Adenoma polyps are benign tumors that start from epithelial tissue. These polyps have the potential to become cancer cells so they can be called a precancerous condition.
- b. Hyperplastic polyps, are polyps that are quite common to form and have a smaller chance of turning into cancer

According to Globocan data as of 2020, colorectal cancer is in 4th position as the most common type of new cancer case in Indonesia. This cancer tends to be more at risk for men and is in second place just below lung cancer. Symptoms of colorectal cancer depend greatly on the size, location of the cancer, and stage. General symptoms of colon cancer include:

- a. Change in bowel habits (diarrhea or constipation).
- b. Feeling nauseous or vomiting.
- c. Feeling that the bowel movement has not been completely completed.
- d. Feeling tired all the time.
- e. There are blood spots (either bright red or very dark) in the stool.
- f. Stomach cramps or frequent pain when passing gas.
- g. Feeling bloated or too full.
- h. Weight loss for no apparent reason.

The cause of colorectal cancer is the growth of abnormal cells that develop into cancer. However, the reasons that trigger this abnormality are not yet known with certainty. Experts suspect that the causes of colon cancer are influenced by genetic and environmental factors. The choice of treatment for colon cancer will depend on many factors, including the stage of the cancer suffered. There are several colon cancer treatment options. Your doctor may recommend a combination of several procedures to obtain effective colorectal cancer treatment. The following are various treatment options for colon cancer: Surgery or surgery, which is the main step in treating colorectal cancer. This option is possible at all stages of cancer. Surgery can be performed using the following procedures:

- a. Colostomy to open the outside of the body with the aim of draining waste.

- b. Local (closed) surgery, performed by laparoscopy or keyhole surgery.
- c. Open surgery to remove the cancer and some of the colon tissue and surrounding lymph nodes.
- d. Chemotherapy, using chemical drugs which aim to kill and stop cancer cells. Chemotherapy is generally applied to cancer cases that have entered stage 2 to the next stage.
- e. Radiation therapy or radiotherapy, uses X-rays to kill cancer cells. This procedure is usually used for combined treatment of stage 3 and stage 4 cancer.
- f. Targeted therapy, to block cancer growth by only affecting certain cells infected with cancer.
- g. Cryosurgery, a procedure that aims to freeze and destroy cancer cells with liquid nitrogen.

## **5. Pancreatic cancer**

Pancreatic cancer is a health problem in the form of uncontrolled cell growth in pancreatic tissue. Generally, symptoms of pancreatic cancer only appear when the cancer cells have spread to other body organs. In general, the cause of pancreatic cancer is a gene mutation that occurs in the cells in the pancreas organ. However, what causes these cells to mutate is not yet known for certain. Apart from that, there are several factors that can trigger pancreatic cancer in a person. Some of the factors that trigger pancreatic cancer are as follows:

- a. Obesity
- b. Aged 55 years and over
- c. Blood type A, B, or AB
- d. Have a family history of cancer
- e. Suffering from diabetes, inflammation of the pancreas (chronic pancreatitis), periodontitis, gallstones, hepatitis B and C, liver cirrhosis, and *Helicobacter pylori* bacterial infection
- f. Unhealthy lifestyles, such as smoking, consuming excessive alcohol.

Pancreatic cancer tends to be unnoticed by sufferers from an early age. Once it has developed and become more malignant, pancreatic cancer usually causes symptoms. The explanation of the symptoms of pancreatic cancer is as follows:

- a. Drastic weight loss for no apparent reason



- b. Appetite goes down
- c. Frequent diarrhea disorders
- d. Dark urine color
- e. The color of the stool is pale
- f. Fever
- g. Yellowing of the skin and white part of the eyes (sclera)
- h. Feel tired easily
- i. Blood clots often occur, characterized by swelling, redness, and warmth and pain in the legs.

Some of the treatment steps taken as measures to treat pancreatic cancer are as follows:

1. Surgery

Surgery or surgery will be used as a treatment for pancreatic cancer if it is still in the early stages.

2. Radiotherapy

Radiotherapy will use high-energy rays, such as X-rays and protons, to destroy cancer cells.

3. Chemotherapy

Chemotherapy is a treatment that uses special drugs to inhibit the growth and kill cancer cells.

## **CONCLUSION AND RECOMMENDATION**

From the results of a literature review of five journals about digestive system cancer, it can be explained that there are 5 cancers, namely gastrointestinal cancer, liver cancer, gastric cancer, gastric cancer, colorectal cancer because cancer cells are malignant and can invade and damage the function of the tissue. Digestive cancer, also called Gastrointestinal cancer, attacks the digestive system organs. Digestive cancer also includes gastrointestinal cancer, liver cancer, stomach cancer, colorectal cancer, and pancreatic cancer. Risk factors for digestive cancers are varied because many different organs can be affected. Some factors that contribute to cancer throughout the digestive system include age, heavy drinking (alcohol), smoking, and diabetes sufferers. This type of liver cancer is cancer that grows in liver cells.

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