

Overview of Liver Spread of Colorectal Cancer

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Abstract

Background: The prevalence of colorectal cancer (CRC) is rapidly increasing in developed countries, making it the second most common disease in women and the third most common cancer in men. Psychophysical, functional, and social impairment are all related to health-related quality of life declines brought on by cancer and/or its treatment side effects (QoL).

Description: The most often used CRC-specific QoL questionnaire is the FACT-C. Cancer patients' quality of life (QoL) is essential to their health, survival, and therapy response. Numerous studies that examined various aspects of the QoL assessment in CRC discovered that symptoms, surgical methods, and the number of comorbidities all significantly impacted QoL.

Conclusion: Various therapies could be used to improve the quality of life of CRC patients, despite the fact that they generally enjoy a good quality of life compared to the general population. The results of this review may be useful to cancer practitioners when deciding on treatments and surveillance measures. Future research should concentrate on large prospective studies using well-validated QoL metrics to facilitate outcomes comparison.

Keywords: Colorectal cancer; Psychophysical; Functional; Social impairment

Introduction

Colorectal cancer typically develops in the colon or the rectum. It is the second most common cancer type in women and the third most common cancer type in men [1].

Colorectal cancer can spread to other regions of your body through your lymphatic or circulatory systems. The most common site for colorectal cancer spread is the liver [2].

Discover why colon cancer spreads to the liver and how this affects how it is treated by reading on.

Liver Cancer Developing After Colon Cancer

According to a reputable source, roughly 70% of people with colon cancer get metastatic liver cancer. Metastatic liver cancer is a type of liver cancer that has spread to other organs like the colon or rectum [3].

Colorectal cancer typically spreads from the large intestine to the liver due to the portal vein's direct blood vessel connection to the liver. If the cells within the walls of the colon or rectum start to change and become malignant, it is simple for damaged cells to go directly to the liver through the bloodstream [4, 5].

Even if the liver is where the malignant cells initially start to proliferate and disseminate, they could start off in the colon or rectum. If these malignant cells continue to grow, they may start to damage the liver and obstruct its capacity to function normally by developing tumours [6].

Between 14 and 18 percent of people with colorectal cancer have metastasized cancer at the time of their initial medical examination. This number is actually closer to 35% when a computed tomography (CT) scan is used to identify whether the cancer has spread to the liver [7].

Research indicates that colorectal cancer may spread at an early stage of the disease and possibly for years before it is identified [8].

Colorectal cancer is categorised based on its stage, which spans

from I to IV. Stage IV refers to cancer that has spread to the liver or another distant organ, such as the lungs or brain [9].

Discussion

Detection of colon cancer

The primary diagnostic procedure for detecting colorectal cancer is a colonoscopy with a biopsy. A biopsy, or small tissue sample of the intestinal lining, is obtained during a colonoscopy. The tissue sample will next be examined in the lab to check for the presence of cancer cells. For a specific cancer diagnosis, a biopsy is necessary [10].

Imaging examinations are used to evaluate whether the cancer has spread to the liver or another distant organ. The numerous imaging techniques that may be used include:

- CT (computed tomography) scan
- Sonography,
- MRI (magnetic resonance imaging)
- X-ray,
- Some of the imaging methods include PET scans.

After liver metastasis, colon cancer treatment

If the cancer has spread from your colon to your liver, you may be able to have surgery to remove it from both locations. Chemotherapy is

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another common treatment for colorectal cancer [11].

Surgery

Colon cancer could be cured using the following methods:

Hemocolectomy, which entails removing the diseased segment of the colon along with a small section of healthy colon on either side and then reattaching the colon, also involves the removal of lymph nodes to check for cancer cells. A less frequent treatment called a total colectomy entails removing the entire colon [12].

You could require chemotherapy to shrink the colon and/or liver cancer before surgery. Chemotherapy is routinely administered following surgery to get rid of any remaining cancer cells. This is indicated by neoadjuvant chemotherapy [13].

Usually, liver cancer can only be removed surgically if it only affects a tiny portion of the organ. Only 20 to 30 percent to 30 percent of persons with metastatic colon cancer have the option of having surgery. Studies show that between 39 and 58 percent of liver surgery patients recover from the treatment for at least five years [14].

Your surgeon will perform the most thorough surgical cleaning of your intestines and liver. Both of these actions could be carried out simultaneously.

Embolization and ablation: When embolization or ablation are utilised to treat tiny tumours, surgery may not be required.

Ablation is used to get rid of tumours that are less than 4 centimetres (cm) (1.6 inches) across. Examples of methods for eliminating liver cancer cells include:

- Radiofrequency ablation, the most widely used ablation method, uses highly energetic radio waves to heat and destroy cancer cells.
- Ethanol ablation eliminates cancer cells from tumours by infusing a concentrated alcohol solution [15].
- In cryosurgery, cancer cells are frozen and destroyed using cold gases.
- In microwave ablation, cancer is burned and eliminated by electromagnetic radiation.

An artery that supplies your liver is injected with a substance as part of a procedure called embolization. The purpose of this procedure is to cut off the blood supply to the liver's cancerous cells [16].

Embolization may be an option if a tumour is more than 5 cm in diameter, cannot be removed surgically or by ablation, and the patient still has a healthy liver.

Chemotherapy

Chemotherapy (chemo) is routinely used to treat colorectal cancer at all stages. It can be used in the following situations:

- As Neoadjuvant chemotherapy: Chemotherapy may be necessary to help malignant tumours shrink before surgery. Radiation is periodically added to this surgery. Chemotherapy at this point makes surgically removing the cancer easier. Depending on the chemotherapeutic agents used, neoadjuvant chemotherapy is typically given for a total of 3 to 6 months [17].
- Adjuvant chemotherapy: In this situation, chemotherapy drugs are given after surgery. Adjuvant chemotherapy tries to target

any cancer cells that are too small to be spotted by imaging tests or to eradicate any cancer cells that could have survived surgical excision. Similar to neoadjuvant chemotherapy, this process normally takes three to six months to complete [18].

- Chemotherapy drugs can help shrink tumours in cancers that have spread to distant organs such the liver, lungs, brain, and other tissues. Even while it won't cure colorectal cancer, it can lessen painful symptoms and increase lifespan.

Chemotherapeutic options come in a variety. According to the American Cancer Society, some of the most common chemo treatment combinations include:

- Folic acid, fluorouracil, and oxaliplatin, or FOLFOX
- Leucovorin, fluorouracil, and irinotecan, or FOLFIRI
- CAPEOX: oxaliplatin and capecitabine
- Leucovorin, fluorouracil, oxaliplatin, and irinotecan, or FOLFOXIRI

Other treatments

As scientists continue to learn more about the changes that occur in cells to cause colorectal cancer to develop, new kinds of targeted drugs that can target those cell mutations are being developed.

In contrast to chemotherapy treatments, which can kill healthy cells, medications used in targeted therapy only target cancer cells. These specialised therapies can be used independently or in conjunction with chemotherapy [19-20].

An alternative form of treatment for colon cancer, particularly for cases when the disease has spread to the liver or other organs, is immunotherapy. This comprises taking drugs to help your immune system detect and get rid of cancer cells.

What are The Prospects?

In the US, rectal cancer has a relative 5-year survival rate of 67 percent, compared to colon cancer's relative 5-year survival rate of 64 percent Trusted Source. When the disease spreads to distant organs, the 5-year survival rates for colon cancer and rectal cancer drop to 14 percent and 17 percent, respectively [21-23].

The 5-year relative survival rate is a statistic that shows how many more people with a disease are still alive 5 years later than those who do not have it.

Conclusion

Colorectal cancer can spread to other organs via your body's lymphatic or circulatory systems. Due to the liver's rich blood supply to the large intestine, the liver is the organ that colorectal cancer spreads to most commonly.

Treatment options for colorectal cancer that has spread to the liver typically include surgery, chemotherapy, and targeted medicines. Numerous chemotherapy drugs are available for the treatment of colorectal cancer. In order to select the best course of therapy for you, you and your oncologist will need to work closely together.

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Conflict of interest

None

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