



Bowel Cancers are malignant diseases of the Colon and Rectum. They are very common particularly in the Western World. The chances of developing a bowel cancer at sometime during life in the United Kingdom are 1 in 15 for men and 1 in 19 for women. The vast majority of these are adenocarcinomas which are formed as a result of uncontrolled abnormal growth of the glandular tissue (within mucosa) that lines the large bowel. Why the lining of the large bowel should be particularly prone to such abnormal growth over and above that of the rest of the gut is not fully understood. A number of environmental, dietary and social factors may play a part in developing bowel cancer and be considered a risk but the effect of a positive family history of the disease is also significant. The majority of people who develop bowel cancer have no particular identifiable excess risk outside that of the population at large. It most commonly affects people over the age of 65 years although this is by no means always the case.

It is thought that colorectal cancers begin as benign polyps in the bowel that undergo malignant change with time and it is this fact that underpins the rationale for screening programmes for the detection of colorectal cancer.

Symptoms

- Change in bowel habit- usually to looser and or more frequent stools
- Rectal bleeding- often mixed into the stools and dark in colour
- Anaemia- showing a deficiency in the body's iron stores
- Abdominal pain
- Weight loss
- Abdominal lumps

Many people diagnosed with bowel cancer will have none of the symptoms above. They may be diagnosed by a screening programme or have disease identified when examined further after abnormalities are detected in routine blood or stool investigations.

Investigation

Most patients undergoing treatment for bowel cancer will have a colonoscopy (to make or confirm the diagnosis and ensure no other bowel abnormalities) a CT scan to ensure there is no evidence of disease spread outside the bowel (the liver and the lungs are the most common sites) and in the case of rectal cancer a pelvic MRI scan.

Treatment

The mainstay of treatment for bowel cancer, where possible, is with surgery and this still offers the only realistic chance of a cure. Colon cancer is treated with surgery, then if necessary (in around half of cases) with a variety of different types of chemotherapy. This is known as adjuvant treatment. Rectal cancer is also treated with surgery but in many cases before this is undertaken radiotherapy is given over a short or long course with or without chemotherapy. This is known as neo-adjuvant treatment. This pre-treatment may be to make an otherwise impractical operation possible, or more commonly be used to reduce the chances of a fully treated rectal cancer returning at the same site in the future. Chemotherapy and (much less commonly) radiotherapy may be given as further adjuvant treatment after rectal cancer surgery depending upon the final stage of disease identified.

Surgery

A variety of different operations are performed to treat colorectal cancer. They are tailored to the individual patient and the site and nature of their disease but broadly speaking there are 5 that are commonly performed.

- Right Hemicolectomy
- Extended Right Hemicolectomy
- High Anterior Resection
- Low Anterior Resection
- Abdominoperineal Excision of the Rectum

The first four operations restore the continuity of the bowel. The fifth involves the formation of a permanent colostomy. Where bowel continuity is restored bowel function, although rarely the same as before surgery takes place, is well maintained for the majority of patients and usually improves with time.

Follow-up and Survival

After surgical treatment patients are followed-up by their surgeons usually for a minimum of 5 years (and longer if aged less than 70 years at diagnosis).

The exact type of follow-up depends upon the patient and the nature of their disease but commonly includes physical examination, blood tests, colonoscopy and CT scans. 5 year survival rates depend upon the stage of the disease determined after surgical treatment. In the UK the

Dukes' Classification is still used to simplify the presentation of colorectal cancer progression and hence predicted survival.

Currently in the UK the rates are as follows

Dukes' A: Cancer within the bowel wall but not through 93%

Dukes' B: Cancer through bowel wall but not in lymph nodes 77%

Dukes' C: Cancer within lymph nodes 48%

Dukes' D: Cancer in sites outside the bowel and lymph nodes 7%

The use of specialised surgical techniques and the provision of neo-adjuvant and adjuvant therapies have resulted in continued improvement in survival figures over the last twenty years. New therapies with great promise are coming into common use every year.

