Colorectal cancer in the young

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Background

- Colorectal cancer (CRC) is the most common malignancy of the GI tract and generally thought of as a disease of older persons, with more than 90% of patients being diagnosed after age 55 years.

- however a significant proportion of patients < 40 years present with this disease.

- We performed a structured review aiming to :

  (1) characterize CRC in the young population and

  (2) determine how CRC in this population should be further addressed regarding detection and treatment.

Data sources

- A Medline literature search was completed. Articles were chosen to include those studies that examined pts < 40 y/o.

- A total of 55 articles were chosen from the search.

- Data were collected and organized into 3 categories:

  (1) patient demographics (age, gender, race)

  (2) clinical items (family history, predisposing factors, time from onset of symptoms to presentation or diagnosis, presenting symptoms)

  (3) tumor-related factors (tumor location, stage at presentation, histology, treatment, 5-year survival).

Results
Patient demographics

Age :

- the average percentage for all the articles was <u>7%.</u> (0.4% ~ 35.6%)

Gender:

- no significant difference in gender distribution (men (51.4%) /women (48.6%))

Race:

- higher proportion of young black male patients

Results

Clinical items

Family history and predisposing factors:

- An average of <u>22.7%</u> of young CRC pts did have a family history (3.2% ~61%).

- "Predisposing factors" were in general considered to be a personal history of IBD (U.C, C.D, or regional enteritis), FAP, or HNPCC.

- An average of <u>16%</u> of pts had predisposing factors (0% ~ 50%).

Results
Clinical items

Delay in diagnosis:

- The average delay in presentation, when thought to be related to patient factors, was 6.2 months (days ~ 9 yrs)

- One study found that 15% of patients had a physician-related delay in diagnosis compared with as high as 50% of patients in another study.

- Two studies commented on the length of the delay in diagnosis: 1 found that 26% of young pts had a 3-month delay in diagnosis, and the other measured a delay of 6 months in 45% of their pts.

Results

Clinical items

Symptoms:

- The most common symptoms were :

    Abdominal pain (55%).

    Rectal bleeding (46%).

    Weight loss (35%).

    Change in bowel habits (32%).

Results
Tumor-related factors

Location:

- The rectum and sigmoid colon were the most frequent sites, and the averages were as follows:

  Ascending (cecum, A-colon, hepatic flexure) -- <u>22%</u>

  Transverse colon -- <u>11%</u>

  Descending (splenic flexure, D-colon) -- <u>13%</u>

  Rectum and sigmoid region-- <u>54%</u>

Results
Tumor-related factors

Stage:

- Overall average stage at presentation was :

  Dukes' A -- 12% (0% ~ 33%)

  Dukes' B -- 22% (3% ~ 59.3%)

  Dukes' C -- 41% (22% ~ 76%)

  Dukes' D -- 25% (3% ~ 60%)

Results
Tumor-related factors

Pathology:

- Averages were as follows:

    Mucinous -- 21% (3% ~ 69%);

    Signet ring -- 3% (1.7% ~ 11.1%);

    Poorly differentiated -- 27% (8% ~ 54%).

Results

Treatment:

- On average, 63% of patients underwent resection for cure, and 31.5% had palliative surgery.

Results

Survival:

- Average overall 5-year survival : <u>33.4%</u> (0% ~ 60%)
    Mucinous tumors -- 24.7% (11.3 ~ 41.6%)
    Poorly differentiated tumors -- 25.5% (11.8% ~35%)

- Average 5-year survival rates adjusted for tumor stage at presentation:
        Duke's A -- <u>94%</u>
        Duke's B -- <u>76.5%</u>
        Duke's C -- <u>39%</u>
        Duke's D -- <u>6.8%</u>

Discussion

- Young pts present with later stages at diagnosis compared with their older counterparts.

- Our review found an average of 66% of pts <40 y/o presented with Dukes' C or D lesions, significantly higher than those for pts >40 y/o.

- Nearly all of the articles noted a higher prevalence of mucinous or poorly differentiated tumors including signet ring tumors in the young.

- This is one of the main distinctions between the disease in older versus young pts.

Discussion

- Marble mentions that 85% of young pts with poorly differentiated tumor presented at stage C or D versus 15% in the older population (*P* = 0.001).

- The significance of these histologies in the young is the decreased 5-year survival rates: 24.7% for mucinous and 25.5% for poorly differentiated.

- Overall, it appears that colorectal cancer in the young population is more aggressive disease, presents with later stage, and has poorer pathologic findings.

Discussion

- This review found the average overall 5-year survival for young pts to be 33.4%. (33% to 75% in the older).

- Young pts with Dukes' stage A or B tumors appear to have better survival than older pts with similar-stage disease. Perhaps secondary to improved tolerance of surgery and adjuvant therapy by the young pts.

- On the other hand, young pts diagnosed with Dukes' C or D lesions do the same or worse than older pts with same stage disease.

Discussion

- This tumor in pts < 40 years old appears to have unique characteristics when compared with the older population. Young pts present with later-stage disease and poorer pathology.

- If the disease is detected early, young pts have improved survival compared with older pts. However, if they present with later-stage disease, they appear to have a poorer prognosis.