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**PROGNOSTIC VALUE OF COLECTOMY IN CANCER DIAGNOSIS IN 2016 IN  
SHIRAZ**

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**ABSTRACT**

**Introduction:** Colorectal cancer is a common malignant disease and the mortality has relatively significant. Colectomy or colon removal considered as the treatment of this disease.

The most important factor in predicting survival is tumor stage that affects the choice of care. According to the importance of colon surgery as a treatment option for early and definitive diagnosis of type and stage of cancer, this study evaluated the sensitivity and diagnostic value of colectomy, in order to definitively diagnose patients with cancer.

**Materials and methods:** This retrospective cross-sectional study was done about the patients who admitted to Ordibehesht hospital in Shiraz in the first 6 months of 1395 for colectomy surgery. Patients with inclusion criteria in the first 6 months of surgery had undergone colectomy and pathological samples reports was found by researchers and their diagnostic and demographic information was analyzed by SPSS software.

**Findings:** In this retrospective study, 72.2% patients with adenocarcinoma and 27.8% non-adenocarcinoma were diagnosed. Percent of the total patients was 72.2%. Patients' mean age was  $13.2 \pm 61.54$  minimum 35 years and maximum 79 years.

**Discussion and conclusion:** According to the results it seems that colectomy surgeries can largely diagnosed patients with cancer in the early stages and this provides ease of treatment and increase survival.

**Keywords: colectomy - cancer - colon –diagnosis**

**INTRODUCTION:**

Colorectal cancer is one of the few cases of cancer which treatment is well-treated in the early diagnosis. Colorectal cancers arise from adenomas which can be identified and removal during a colonoscopy screening.

(1) Unfortunately, the early stages of cancer are asymptomatic and not detected. In other words, early diagnosis of colorectal cancer is not possible without the use of special methods. Therefore, it is important to appropriate legislation for the prevention and early detection of colorectal cancer to the public (2).

Colonoscopy is a method of diagnosis at age 55 and then 10 years later. Removal of polyps and adenomas during colonoscopy can be performed up to 90% to reduce the risk of colon cancer. It has been clear for several years that before the onset of clinical symptoms, the cancer often presents as intestinal polyps. Initially, small size and growth rate of polyps, which are benign, are different. Polyps often have superficial bleeding and later become malignant. (3-5)

Colorectal cancer is the second cause of death after lung cancer in the United States. In the past 15 years its prevalence and mortality of colorectal cancer has fallen to 10% (in the United States of America) due to early detection and improved treatment (3) According to a new scientific report ,

2,885 patients with advanced colorectal cancer were tested, let alone have only 23.9% had positive results.

Uncertainty occult blood test (guaiac test) and a relatively high rate of false positive results caused many researches done to fix the flaw. Fortunately, it was conducted and positive results have been confirmed in numerous reports. (6) Colectomy or colon removal, is considered as the treatment. This surgery is usually done surgically opening the abdomen; people with experience in advanced laparoscopy can be done with a laparoscope (7). The most important factor in predicting survival is tumor stage that affects the choice of therapy. Surgery is effective in the early stages. Simultaneously or exclusively chemotherapy and radiation therapy can be carried out.

Endoscopic laser surgery is also possible. In advanced stages, surgical excision is done to help the passage of food and treatment. (7)

**Dukes and TNM classification system**

Stage 1:

Superficial lesions which lymph nodes are not limited to Submucosa or T1 (5-year survival is less than 95) and mucosa or T2 (5-year survival is less than 9) are classified as Stage 1

Stage 2:

Tumors that have exceeded muscle but have not reached the lymph nodes (5-year survival of 70 to 85%)

Stage 3:

1 to 3 lymph node involvement (5-year survival of 50% to 70%)

Stage 4:

More than four lymph node involvement (5-year survival of less than 5%)

Colectomy is used for the treatment or prevention of certain diseases of the colon such as the following:

- 1) Uncontrollable bleeding: Colon severe bleeding may need surgery to remove part of the colon.
- 2) Bowel obstruction: The colon is blocked, and based on the patient's condition is considered a medical emergency, partial or complete colectomy may be required to fix it.
- 3) Colon cancer: In the early stages of colon cancer may need only a small part of colectomy. In the later stages of colon cancer may need more parts to be removed.
- 4) Crohn's disease: If the drugs do not help patients, withdraw the affected part of the colon may be recommended to relieve the symptoms and symptoms temporarily. In addition, if you see changes before cancer colonoscopy test, colectomy can be one of the treatment options.
- 5) Ulcerative colitis: If taking medication to control the symptoms of this disease is not

effective, your doctor may recommend colectomy. Also if you see changes before cancer colonoscopy test, colectomy can be one of the treatment options.

**6) Diverticulitis:** If the diverticulitis recurrence or complications of diverticulitis is presented, surgery may be recommended to remove affected part of the colon.

7) Preventive surgery: due to formation of pre-cancerous polyps in the colon numerous, the patient's risk of developing colon cancer is high, to prevent future cancer, complete colectomy for this person is needed. It is possible for people who have a genetic history of colorectal cancer, familial adenomatous polyposis, such as (familial adenomatosis polyposis) or Lynch syndrome (Lynch syndrome) is also an option colectomy. At any stage of cancer, especially early stage, treatment involves removing part of the intestine and the infected tissues. If the tumor is very large, the only way is to remove the entire colon (bowel). It is pleasant in the early stages, surgery is very effective but if the disease is in the final stage, surgery will not be very successful (5). Given the importance of colon surgery as a way to treat and diagnose the type and stage of the cancer early, this study colectomy sensitive and diagnostic value in order to definitively diagnose cancer patients be evaluated.

**MATERIALS AND METHODS:**

This retrospective cross-sectional study was done about the patients who admitted to Ordibehesht hospital in Shiraz in the first 6 months of 1395 for colectomy surgery. None of these patients previously untreated with chemotherapy or radiation, and they were they undergone of colectomy by doctor's order due to uncontrollable bleeding, ulcerative colitis, Crohn's disease or other noncancerous causes. Age requirement was not intended to determine average age in both sexes. The patients had no history of any cancer and had no other disease except digestive disease. Data was collected through a questionnaire. Patients with inclusion criteria in the first 6 months of surgery had undergone colectomy and pathological samples reports was found by researchers, and demographic information such as age, gender and diagnostic information includes the presence or absence of cancer, type of cancer, the cancer spread and stage of the cancer was extracted from the patient. Data analysis was performed using SPSS version 19.

**FINDINGS:**

In this retrospective study, 18 patients were evaluated in 13 patients with adenocarcinoma (72.2%) and 5 healthy people (27.8%) were diagnosed **Figure 1**.

Percent of the total patients was 72.2% in the diagnosis of cancer. It can be said that this type of surgery has been successful and able to detect 72.2% of patients. Sensitivity and specificity of factors indicated the following.

**Sensitivity = 72.2%**

**Specificity = 27.7%**

Patients' mean age  $13.2 \pm 61.54$  was minimum 35 years and maximum 79 years. The prevalence by age was in this way that 30.8% of patients in the age group 35 to 56 years and 69.2% were in the age group 57 to 79 years.

Cancer incidence among women was 69.2% and 27.8% among men. The most common place was rectum with 50%. According to the results of a study, 9 patients were in stage 2, 3, 1 and 1 patient were diagnosed with stage 4 cancer that has been shown in **Figure 2**.

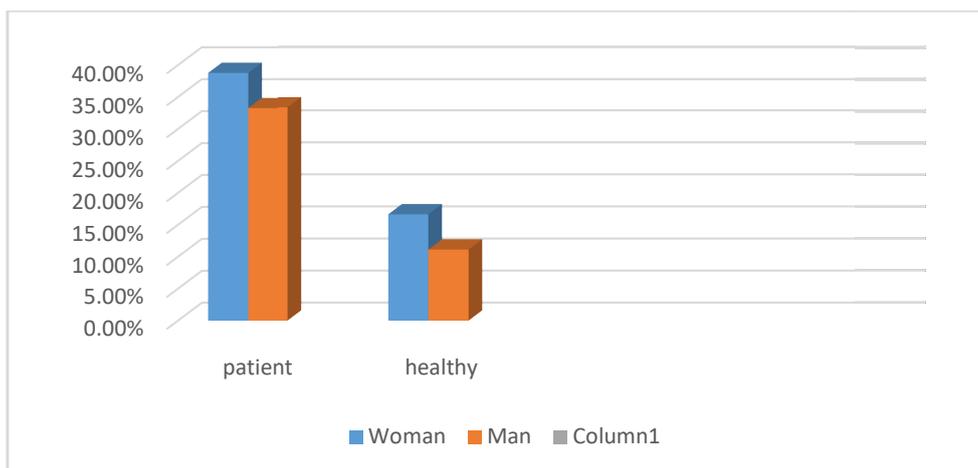


Figure 1: Compared healthy individuals and cancer patients

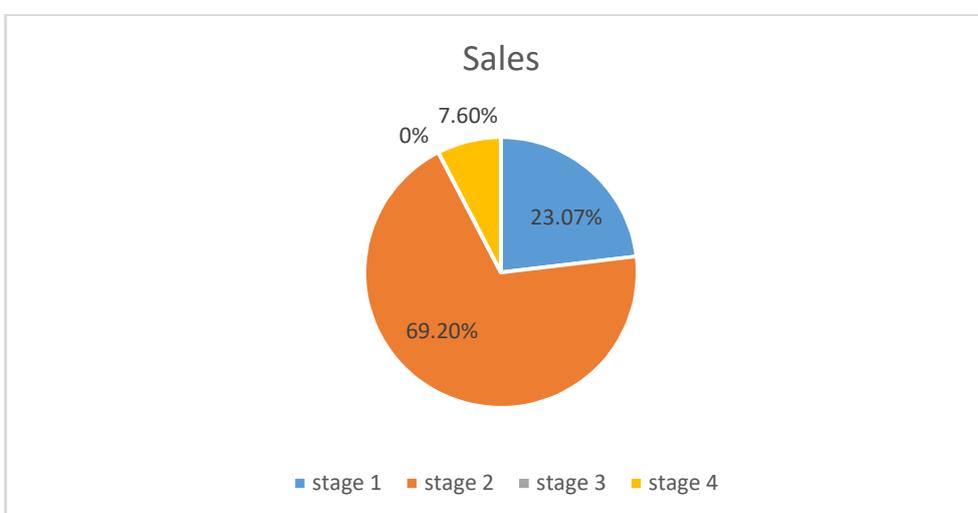


Figure 2 - stage cancer in patients

**DISCUSSION AND CONCLUSION:**

This retrospective cross-sectional study was done to assess the value of colectomy procedures for cancer detection and stage of the cancer and therefore its effectiveness in treating cancer in patients who admitted for this surgery. The results of this study showed that the sensitivity of this method is 72.2%, and can be useful in definitive diagnosis of the disease, according to the results of the study 69.2% of people who have been following this surgery and were diagnosed, were in the second phase of cancer. The disease is confined to the

colon and rectum and other organs such as the lungs and liver are still not spread. Studies suggest that the standard treatment for patients with stages one to three is colon cancer surgery (12). Given that, the majority of patients with cancer in stage 1 and 2 after the inclusion of patients in the phase propagation can be prevented and cancer treatment was limited at this point and we can conclude that colectomy procedures are in phase-detection and successful treatment. 69.2% of patients were women. This statistic is in contrast with the global statistic. World Statistics

states one person in every 21 men but one person in every 23 women diagnosed with colon cancer (11) In this study, the average age of patients was 61.5, which is in agreement with previous studies. Studies show that most people who develop colorectal cancer are over 50 years old. Colon cancer may also occur in young but its prevalence is higher in the elderly. (13). In another study doctor Zali suggests that adenomatous polyps in the colon may be found 05% middle-aged and 05% older adults. (1) According to the present results seem to be largely colectomy surgeries for patients with cancer in the early stages and this provides ease of treatment and increase survival.

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