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Letter to Editor

Is Colorectal Cancer an Unusual Malignancy among Iranian Children?

Karimi M[1], Shahriari M[2], Abdolkarimi B*[3], Mokhtari M[4]

1. Professor of Pediatric Hematology-Oncology, Department of Pediatrics, Shiraz University of Medical Sciences, Shiraz, Iran
2. Associate Professor of Pediatric Hematology-Oncology, Department of Pediatrics, Shiraz University of Medical Sciences, Shiraz, Iran
3. Fellowship of Pediatric Hematology-Oncology, Shiraz University of Medical Sciences, Shiraz, Iran
4. Assistant Professor of pathology, Department of Pathology, Shiraz University of Medical Sciences, Shiraz, Iran

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**Corresponding author:* Abdolkarimi B,
Email: b.abdolkarimi@yahoo.com

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Dear Editors

Adenocarcinoma of colon and rectum is the second most common cancer of the gastrointestinal (GI) tract in children. The development of carcinoma of colon in general appears to be associated with several predisposing factors such as familial polyposis, hereditary non-polyposis syndromes, ulcerative colitis, previous ureterosigmoidostomy or radiation therapy and dietary factors (high fat or low fiber diets) [1]. Here we report three adolescents with colorectal cancer referring to Amir Oncology Hospital, Shiraz, southern Iran, presenting with various signs and symptoms including acute abdominal pain, painless rectorrhagia, and refractory iron deficiency anemia. They did not have any known predisposing risk factor.

Patient 1 was a 14-year-old girl presented with acute abdomen. Abdominal sonography showed a target-like lesion on the thickened segmental bowel wall with a protrusion of the serosa which was surrounded by localized ascites in the lower abdomen. She was found to have a right-sided colon cancer at laparotomy. Histology showed stage 4 Duck. She was diagnosed to have a brain metastasis. Patient 2 was a 16 year-old boy presented with refractory iron deficiency anemia due to metastatic colorectal cancer without any underlying disease in the GI tract. The patient was treated by large amounts of iron supplement and was referred for evaluation of refractory iron deficiency anemia. Patient 3 was a 12 year-old girl presented with painless rectorrhagia without any abdominal complaints. Colonoscopic study revealed typical colon lesions in sigmoid, descending the colon and rectum. Family history was unremarkable for adenomatous polyps.

Symptoms of colon cancer in children are nonspecific and include chronic persistent abdominal pain (90%), emesis, bowel habit changes, weight loss (77%), occult blood in the stool with chronic anemia (60%), tenesmus,[2] and a palpable abdominal mass. Therefore early diagnosis of patients without predisposing factors is associated with better outcome and prevention of advanced stages and increased rate of successful treatment modalities such as adjuvant chemotherapy after primary surgery.

Although this tumor is rare in children, physicians should be alert about the cardinal signs and symptoms and to improve patient's outcome a high index of suspicion should be kept in mind. Likewise, infrequent signs and symptoms such as acute abdomen or refractory iron deficiency should increase suspicion. Primary diagnostic modalities such as fecal occult blood, complete blood count, abdominal ultrasound and/or invasive procedures such as colonoscopy should be carefully performed in children presenting with red flags for colon cancer including lower GI bleeding, acute abdomen, or iron deficiency anemia. Moreover,

monitoring of carcinoembryonic antigen (CEA) levels is recommended during postoperative follow-up in pediatric colon cancers similar to adults [3].

Another approach for early detection of this cancer in absence of red flags is routine screening in children predisposed to colorectal cancer as a way to increase overall prognosis. Stools may be tested or a barium enema, colonoscopy, sigmoidoscopy or virtual colonoscopy may be performed. Regardless of any test, a laboratory analysis of tissue ultimately determines existence of tumor. Therefore, cell biopsy, fluid or tissue in the colon needs to be examined to determine presence of tumor.

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