Rare Case Report: Colorectal Carsinoma in 13 Years Old Boy

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Abstract. Colorectal carcinoma is a malignant tumor, often found in adults and the elderly. One case was found in children, with an incidence of about 1% of neoplasms in children. The aim of the authors is to report the first case in the last 5 years of our institution, a 13-year-old patient with a major complaint of flatulence and defecation of blood mucus and weight loss. The patient previously went to medical staff but there was no change, then was referred to Sardjito General Hospital. On digital rectal examination, there are many lumps in the rectum. Examination of barium enema is carried out with results according to the picture of rectal carcinoma. Exploratory laparotomy was performed and desendent colon tumors were fixed in the rectum and left lateral abdominal wall. It was decided to do a permanent colostomy and follow up for 3 months. Colorectal carcinoma in 13-year-old men is a rare case. Family history with similar complaints is denied. Anatomic pathology examination revealed neuroendocrine carcinoma. Patients have a permanent colostomy because the tumour cannot be resected and chemotherapy. Patients were followed up for 3 months by tracking metastases. Colorectal carcinoma in children is a rare and often delayed diagnosis, and has a poor prognosis.

Keywords: Colorectal carcinoma · neuroendocrine carcinoma · tumor in children

1 Introduction

Colorectal carcinoma is a malignant tumor, often found in adults and the elderly. Colorectal cancer in adults is the third most common cancer after lung cancer and breast cancer [1]. Colorectal carcinoma is very rare in children; the reported incidence is 1: 10,000,000 adolescents <20 years [2]. The peak incidence occurs at 15 years of age. Many studies have reported the risk for colorectal carcinoma. Known genetic factors that can increase the risk of colorectal cancer are familial polyposis of the colon, Gardner's syndrome, Turcot's syndrome, Peutz-Jegher syndrome. According to most studies, 10% of pediatric colorectal cancers have predisposing factors [3].

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The initial symptoms of this disease are complaints in the digestive tract such as abdominal pain, changes in defecation patterns. In addition, there is also weight loss and anemia, but these symptoms are not specific in children, where the symptoms resemble functional disorders of the gastrointestinal tract. Attention to this disease is still low and delay in diagnosis causes the disease become more severe, so the prognosis is very poor when compared to adults.

The authors aim to report the first case in the past 5 years from our institution, a 13-year-old patient with chief complaints of flatulence and bloody stools.

2 Case Description

The patient is a 13-year-old male, was admitted to RSUP. Dr. Sardjito because he complained of flatulence, difficult to defecation, bleeding per rectum and weight loss. The duration of symptoms before admission was three months. Three months before his admission to the hospital, he had symptoms of difficulty defecating and the complaints were getting worse. Patient never had experiencing similar complaints. Family history of illness, the family denied any similar complaints.

From the physical examination, the abdomen was distended with darm contour, increased peristalsis, borborigmi and metallic sound were found. Examined on the genitals, blood mucus was seen on the patient's sanitary napkins. Digital rectal examination was found circular mass in the rectum with pain, blood mucus on the gloves, but no feces. Our initial diagnosis was mechanical ileus et causa suspected rectal carcinoma (Fig. 1).

A barium enema examination was performed with the results is rectal carcinoma. The patient underwent exploratory laparotomy. The tumor was fixed in the rectum, sigmoid, and left lateral abdominal wall. It was decided to do a permanent colostomy and rectal biopsy (Figs. 2 and 3).

Pathological examination of the masses revealed solidly arranged tumor, partly "rossete like" impression, infiltrative to the submucosal layer and partially ulcerative mucosa. The result of the rectal biopsy was neuroendocrine carcinoma. The patient received chemotherapy epirubicine and dacaibacin. Evaluation with MSCT-Scan upper lower abdomen found a bone metastasis at corpus vertebra sacralis I after three months treatments (Fig. 4).

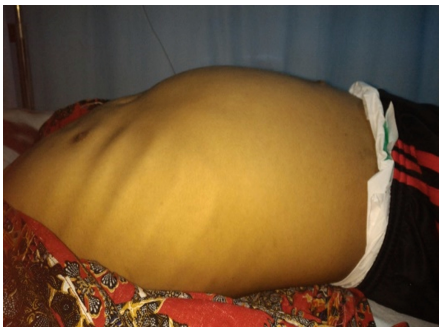

Fig. 1. Abdominal distension with darm contour

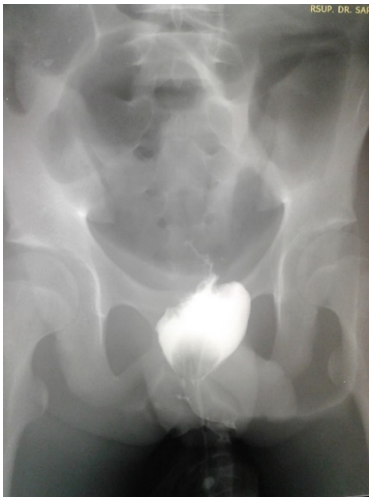

Fig. 2. Barium enema examination

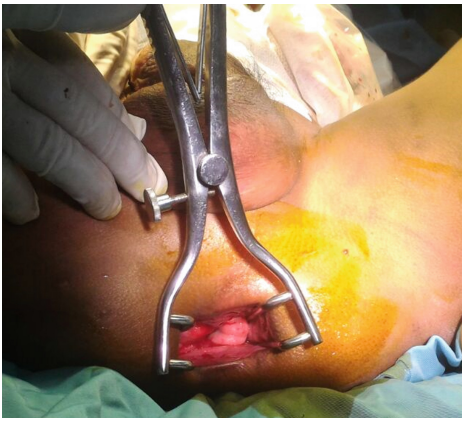

Fig. 3. Tumor at rectum

3 Discussion

Colorectal carcinoma is a very uncommon malignancy in childhood. Colorectal carcinoma is the most common cancer of the gastrointestinal tract [4]. The familial colorectal carcinoma in children and adolescent is closely linked with the inheritance of familial syndromes such as familial adenomatous polysis, juvenile polyposis, nonpolyposis colon cancer, inflammatory bowel diseases, neurofibromatosis, among many others [5]. We did not find any of the predisposing factors in our patient. Most patients are asymptomatic but rectal tumor can present with rectal bleeding, abdominal pain, diarrhea and flushing of the skin [6]. Our patient had difficult to defecation, bleeding per rectum and weight loss for the symptoms.

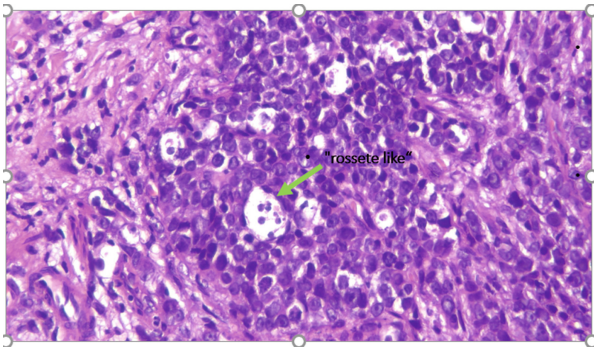

Fig. 4. Rossete like in pathological examination (arrow sign)

Pathological examination from the biopsy tumor showed rossete like impression, that is typically neuroendocrine carcinoma [7]. Neuroendocrine cells are located throughout the human body, therefore neuroendocrine tumor can appear almost all over the body. Neuroendocrine tumor is a rare tumor, incidence is reported about 6 cases in 100.000 adult and about 2 [8] cases per million in pediatric.8 Most neuroendocrine tumors occur in the lungs, appendix, small intestine, rectum and pancreas [9]. The most common site for neuroendocrine carcinoma is the gastrointestinal tract and pancreas. Gastrointestinal tract neuroendocrine carcinoma is divided based on the embryological origin, there is foregut, midgut, and hindgut [10]. Hindgut neuroendocrine tumor which includes tumors located in the left colon, rectum, and anus [10]. Tumor in our patient was fixed in the rectum, sigmoid, and left lateral abdominal wall.

Surgery is the only curative modality for localized colorectal carcinoma [11]. We did permanent colostomy and rectal biopsy for the treatment. Data from the SEER database show that the 5-year survival rate is 88.3%, depending on tumor size and invasion [12]. Studies have shown two-thirds of patients with colorectal high-grade neuroendocrine tumor present with metastatic disease [13]. Bone metastases at corpus vertebra sacralis I were found on evaluation after three months treatments.

Most gastrointestinal carcinoma grow slowly. If they do cause symptoms, they tend to be vague. When trying to figure out what's going on, doctors and patients are likely to explore other, more common possible causes first. This can delay a diagnosis and the treatments [14]. With the advances in diagnosis and treatments, overall, 5-year survival is around 75% in adult patients but only around 51% in pediatric population [2].

4 Conclusion

Colorectal carcinoma in children is a rare and often delayed diagnosis, and has a poor prognosis. So, knowledge and early detection are things that need to be observed in order to know the early diagnosis and early prognosis of colorectal carcinoma.

Conflict of Interest. Authors declare that there are no conflicts of interest regarding this work to be disclosed.

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