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Hematochezia Revealing an Adenocacinoma

Amal Hamami[1*], Madiha Benhachem[1], Ayad Ghannam[1], Aziza El Ouali[1], Abdeladim Babakhouya[1], Noura Seghrouchni[2], Nassira Karich[2], Amal Bennani[2], Maria Rkain[1]

[1]Department of Pediatrics, Faculty of Medicine and Pharmacy of Oujda, Mohammed First University, Oujda, Morocco
[2]Laboratory of Pathological Anatomy, Faculty of Medicine and Pharmacy of Oujda, Mohammed First University, Oujda, Morocco
Email: *hamami.amal16@gmail.com

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Abstract

Colorectal carcinoma (CRC) is a common pathology in the adult population but remains a very rare neoplasia in childhood with delayed diagnosis and advanced stage with grim prognosis that can be fatal, research regarding pediatric adenocarcinoma remain very rare. IT represents approximately 1% of pediatric neoplasms. It is usually associated with predisposing genetic factors; this pathology is closely linked with the inheritance of familial syndromes. The pediatric clinical presentations are nonspecific, with a grim prognosis. This review aimed to report a case of a 10-year-old girl who presented with constipation and hematochezia evolving since three months' diagnosis with rectal adenocarcinoma.

Keywords

Adenocarcinoma, Colorectal Cancer, Rare, Child, Grim Prognosis

1. Introduction

Colorectal carcinoma tumors, especially adenocarcinoma, are rare in childhood [1]. It represents approximately 1% of pediatric neoplasms with a dark prognosis, the clinical presentations are nonspecific especially in children. The risk of developing these tumors is increased by having inherited conditions. We report the case of a 10-year-old girl child who presented to pediatric emergency with constipation and hematochezia caused by a rectal adenocarcinoma.

2. Observation

A 10-years-old girl, admitted to pediatric emergency with hematochezia evolving three months with a medical history of chronic constipation no responding to symptomatic treatment, the girl is from a consanguineous marriage and has a

family history of brain tumor (a brother who died due to a brain tumor with no document and a little sister under palliative chemotherapy due to glioma brain tumor), the medical examination showed a stable patient, pale with discolored conjunctiva, the skin examination found hyper pigmented birthmarks (coffee with milk spots) all over her body, the abdominal examination and lymph nodes were without particularities, blood tests showed normochromic normocytic anemia (8.6 g/dl). The bleeding profile was normal, the colonoscopy showed a bulging ulcerative lesion at 6 inches from anal margin (**Figure 1**), the anatomopathology study objectified a histological aspect of undifferentiated infiltrant rectal adenocarcinoma carcinomatous with tumor proliferation arranged in clusters and cribriform masses. The tumor cells show clear cytonuclear atypia, the nuclei are atypical, irregular, hyperchromatic and nucleolated, mitosis figures are noted, the tumor stroma is fibro inflammatory, no vascular emboli or peri-nervous sheathing, an immunohistochemically study has objectified a positive staining of the tumor cells by pan cytokeratin (**Figure 2**), and she benefited also from a full body CT ray with no second localization of the primary tumor. The patient is now chemotherapy treatment.

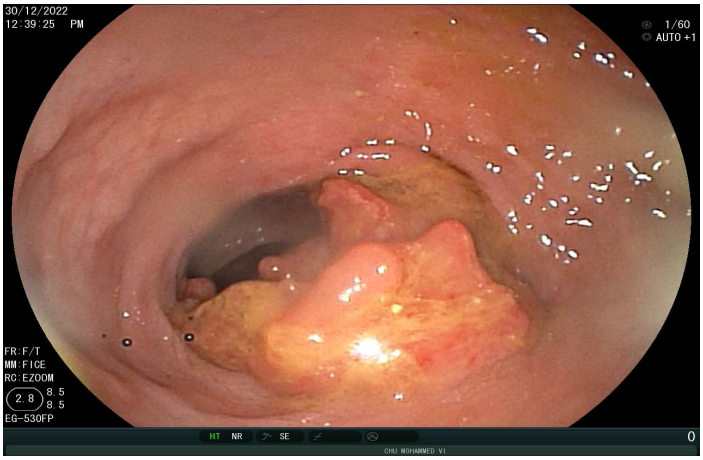

Figure 1. Adenocarcinoma tumor on rectal colonoscopy.

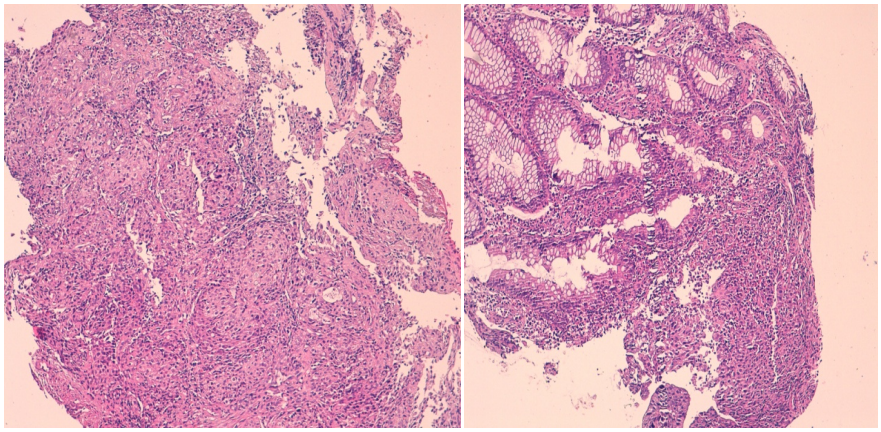

Figure 2. Histology of adenocarcinoma tumor.

3. Discussion

Childhood colorectal carcinoma is rare. It represents approximately 1% of pediatric neoplasms, it is the most common primary gastrointestinal malignancy in children [1] with an incidence around 1 - 2 child and/or adolescent in 1 million people, however the incidence seems to be increasing recently [2]. In contrast to the pediatric population, colorectal carcinoma is very common in adult population with an incidence rate around 43.7 per 100,000 men and women per year, with peak age of 65 years old [3]. It is more common in developed countries (Europe and north america). Childhood colorectal carcinoma most often affects children with a family history of this neoplasma or of an inherited condition called familial intestinal polyposis [4] [5].

CRC clinical manifestations are nonspecific in children; they can be considered as benign gastrointestinal conditions. The symptoms include abdominal pain, constipation or diarrhea, a bowl in the abdomen, unexplained weight loss, anorexia, hematochezia and anaemia. In the pediatric population, there are other affections which are more likely to present with abdominal pain so it cannot be an indicative symptom of CRC because [6] [7].

The duration of signs before diagnosis is usually lengthy, ranging from 2 to 6 months, with median of 3 months [8]. In the reported case described in literature symptoms including abdominal pain, weight loss and hematochezia were most commonly recorded, most cases published were about male patients. CRC can occur anywhere along the colon (large intestine) or rectum [9]. Ascending and transverse colon cancers are usually diagnosed late due to the fact that, they usually present with symptoms of intestinal obstruction.

To diagnose CRC, mainly requires a high index of suspicion which can be confirmed by sigmoidoscopy or colonoscopy and biopsy. The use of imaging tests like CT ray and positron emission tomography (PET) has been found to help in detecting the cancer [10]. The genetic screening of family members should be done to rule out the various hereditary polyposis syndromes.

CRC treatment is based mainly on the stage of the cancer on the moment of diagnosis. For the best chance of a complete cure, the tumor must be completely removed by surgery. But if it is too large to start with, chemotherapy and/or radiation may be sometimes used to try to shrink it first and then start a chemotherapy. CRC is usually associated with dark prognosis, a number of prognostic factors have been reported such as delay in diagnosis, mucinous and/or signet ring cell variants of CRC, tumour stage, tumour grade, lymph node metastasis, vascular and perineural invasions, aneuploidy DNA, or increased carcino-embryonic antigen (CEA) tumour marker [11] [12] [13].

4. Conclusion

CRC is extremely rare in children. The diagnosis of CRC is often delayed because of the uncommon signs most of time. Childhood colorectal cancer may be part of an inherited syndrome. They are generally aggressive and have a grim prognosis unlikely.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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