A Rare Cause of Constipation and Acute Malnutrition: Primary Intestinal Lymphoma

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ABSTRACT

Constipation is the group of disease that is most frequently consulted with experts in pediatric gastroenterology. Abnormal neurological examination, non-intestinal symptoms or cases unresponsive to treatment should be stimulative and suggestive of another underlying cause to the doctor. Mature B-cell malignant disease (Burkitt lymphoma) forms 35-40 % of all non-Hodgkin lymphoma patients. Burkitt lymphoma can be a mass in gastrointestinal system. In this paper, a four-year-old boy who was hospitalized for 17 days in other centers with a diagnosis of malnutrition and constipation and diagnosed as primary intestinal lymphoma in our clinic is presented. Primary intestinal lymphomas discussed under the light of literature.

Key words: intestinal lymphoma, constipation, acute malnutrition

INTRODUCTION

Constipation is the group of disease that is most frequently consulted with experts in pediatric gastroenterology. Most cases of constipation have no structural, endocrine or metabolic cause and these cases are called idiopathic or functional constipation. Reasons such as meconium delay, growth retardation, empty rectum, tight anal sphincter are seems to be responsible for constipation that starts in children before 12 months of age. Nevertheless, abnormal neurological examination, non-intestinal symptoms or cases unresponsive to treatment should be stimulative and suggestive of another underlying cause to the doctor (1). Lymphomas are divided as Hodgkin and non-Hodgkin lymphoma (NHL). According to the classification of NHL in childhood that made as a result of the investigations of immunohistochemical, cytogenetic and molecular biologic done in 2008; it is classified as malignant disease of lymphoid precursor (T-lymphoblastic lymphoma (15-20%), B-lymphoplastic lymphoma (3%), Mature B-cell malignant disease (Burkitt lymphoma (BL) (35-40 %), Diffuse large B-cell lymphoma (15-20%), primary mediastinal B-cell lymphoma (1-2%), pediatric follicular lymphoma (rare), marginal pediatric nodal zone T-cell lymphoma.

Konstipasyon ve Akut Ağır Malnutrisyonun Nadir Nedeni: Primer İntestinal Lenfoma

ÖZET


Anahtar kelimeler: İntestinal lenfoma, konstipasyon, akut malnutrisyon

INTRODUCTION

Constipation is the group of disease that is most frequently consulted with experts in pediatric gastroenterology. Most cases of constipation have no structural, endocrine or metabolic cause and these cases are called idiopathic or functional constipation. Reasons such as meconium delay, growth retardation, empty rectum, tight anal sphincter are seems to be responsible for constipation that starts in children before 12 months of age. Nevertheless, abnormal neurological examination, non-intestinal symptoms or cases unresponsive to treatment should be stimulative and suggestive of another underlying cause to the doctor (1). Lymphomas are divided as Hodgkin and non-Hodgkin lymphoma (NHL). According to the classification of NHL in childhood that made as a result of the investigations of immunohistochemical, cytogenetic and molecular biologic done in 2008; it is classified as malignant disease of lymphoid precursor (T-lymphoblastic lymphoma (15-20%), B-lymphoplastic lymphoma (3%), Mature B-cell malignant disease (Burkitt lymphoma (BL) (35-40 %), Diffuse large B-cell lymphoma (15-20%), primary mediastinal B-cell lymphoma (1-2%), pediatric follicular lymphoma (rare), marginal pediatric nodal zone T-cell lymphoma.
rare and mature T-cell lymphoma ALK positive (15-20%), peripheral T-cell lymphoma. Diffuse large B-cell lymphoma and Burkitt lymphoma can also be abdominal involvement. In addition, Burkitt lymphoma (BL) can be masses in gastrointestinal system (2). In this paper, 17 days hospitalized in other centers with a diagnosis of malnutrition and constipation and diagnosed primary intestinal lymphoma case is presented in our clinic.

CASE
A four-year-old boy who has no complaints previously consulted with an abdominal pain, weight loss (3 kilograms), vomiting, and constipation continued for a month. Approximately one month ago before cases story began constipation started, defecate started with an enema every 3-4 days, because bilious vomit and inability to defecate, 17 days hospitalized with diagnosis of ileus is followed in a foreign center, discharged with oral lactulose upon improvement of the overall situation and on the reduction of complaints. Constipation and vomiting continued during 15 day period at home. The medical history and family history of the case was unremarkable. In physical examination; Body weight: 13.8 kilograms (10-25 p) Height: 104 cm (50-75 P), body temperature: 36.7°C, pulse rate: 90/min, blood pressure: 100/60 mmHg was determined. General condition of patient was moderate, conscious, pale, weak and cachectic. The eyeballs were sunken and mucous membranes were dry. Left tonsillar was hypertrophy compared to the other and there were bleeding focal over it. The cardiovascular system and respiratory system examination was normal. In the examination of abdomen, abdomen was distended, decreased bowel sounds, liver and spleen was nonpalpable. Neurological system was normal. In laboratory investigation of the case, anemia, leukocytosis, thrombocytosis, hypocalcemia, hypoalbuminemia were detected (Table 1). Also GGT, LDH, amylase and uric acid elevation were detected. In abdominal ultrasound hypoechoic areas was observed that led to diffuse thickening of the intestinal loops, lobulated appearance of the wall. In the upper gastrointestinal system endoscopy, the gastric mucosa was hyperemic and edematous. Gastric rugal folds were enlargement; there were polypoid lesions, ulcers above it, and their diameters ranging between 0.5-1 cm. Bulb and duodenum also had polypoid lesions (Figure 1). When biopsy was taken, tissue felt to be too hard. As a result of endoscopy, the intestinal lymphoma suspected patient was sent to Cukurova University Medical Faculty, department of Pediatric Oncology. The patient’s intestinal biopsy was evaluated as BL by department of Pathology. BL was defined as bone marrow involvement in bone marrow aspiration (Figure 2). Bone marrow biopsy was evaluated as lymphomatous bone marrow infiltration by department of Pathology. The patient began che-

Table 1. Hematologic and blood chemical values

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
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<tbody>
<tr>
<td>Hemoglobin (gr/dl)</td>
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</tr>
<tr>
<td>White cell count (/mm3)</td>
<td>15300</td>
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<tr>
<td>Platelet (/mm3)</td>
<td>795000</td>
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<tr>
<td>Calcium (mg/dl)</td>
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<tr>
<td>Amylase (IU/L)</td>
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<td>SGPT (IU/L)</td>
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<tr>
<td>SGOT (IU/L)</td>
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<tr>
<td>Alkaline phosphatase (IU/L)</td>
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</tr>
<tr>
<td>GGT (IU/L)</td>
<td>130</td>
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<tr>
<td>Total Protein (gr/dl)</td>
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<tr>
<td>Albumin (gr/dl)</td>
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</tr>
<tr>
<td>LDH (IU/L)</td>
<td>1062</td>
</tr>
<tr>
<td>Uric acid (mg/dl)</td>
<td>13,7</td>
</tr>
</tbody>
</table>

Figure 1. The gastric mucosa was hyperemic and edematous, ranging from 0.5-1 cm in diameter, polypoid lesions ulcers above it.
motherapy. In the 2nd month of chemotherapy treatment leukemic transformation ALL-L3 development was observed in bone marrow aspiration (figure 3). In the 5th month of chemotherapy jaw involvement (figure 4), blast cells in examination of brain cerebrospinal fluid, 3x2 cm sized lesion and leptomeningeal consistent with lymphoma on posterior wall of the right mastoid sinus on cerebral magnetic resonance imaging and contrast enhancement in pachymeningeal structures was detected. Chemotherapy was continued for patient; however lesion on the jaw of the patient rapidly grew and died in the 6th month of follow-up due to sepsis.

DISCUSSION

Approximately 25% of patients admitted to pediatric gastroenterology is constipation (3). World prevalence of childhood constipation is 0.3-28 % (4,5). Most childhood constipation is functional. However, 5-10% of cases, abnormalities of the colon and rectum, spinal cord abnormalities, gastrointestinal diseases, neuropathic, or constipation may occur due to systemic diseases and drugs (1). Small intestine constitutes 75 % of the entire gastrointestinal tract and 90 % of the mucosal surface. Looking at the place of lymphomas in all the gastrointestinal malignancies, fewer than 2% seen in the small intestine and 35-40 % of these are known to be lymphomas. Endemic and sporadic BL residences are different. While the most common localization of endemic BL is jaw area, abdomen is most commonly seen area of sporadic BL. Many sporadic patients are young males 5-10 aged. Often, they consult with abdominal pain and abdominal distension, nausea and vomiting, and gastrointestinal bleeding, or rarely with intestinal perforation. Lymphomas in children are associated with ileocecal region, approximately between 25-30% of patients with right lower quadrant mass and acute pain with intussusception consult. Sometimes it can be confused with acute appendicitis. Sometimes, patients with acid fluid associated with massive disease, abdominal disease, mesenteric, retroperitoneal region, kidneys, ovaries and peritoneal region may come. Other affected regions in Sporadic BL are the head-neck and pharyngeal, nasopharyngeal bölgelar, paranasal sinuses and tonsils. The status associated with jaw is determined at a rate of 10%. Bone marrow involvement rate is 20%. Other rare-held areas were including testicles, breasts, thyroid gland, skin, epidural region, chest, bone and pankreas (2.7). In the literature, the majority of primary gastrointestinal lymphomas are adult patients, and in the published ar-
Primary Intestinal Lymphoma

Constipation is a common symptom in childhood. If acute onset constipation of a child complaints weight loss and accompanied of the acute malnutrition cases, then primary gastrointestinal lymphoma of a malignancy in the different diagnosis are needed to be considered though being of rare in childhood.

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REFERENCES