

# Primary B Cell Lymphoma of the Colon Mimicking Colon Adenocancer: A Case Report

## Kolon Kanserini Taklit Eden Kolonon Primer B Hücreli Lenfoması: Olgu Sunumu

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### ÖZET

**Amaç:** Diffüz B hücreli lenfoma agresif seyirli bir Non-Hodgkin Lenfoma (NHL) tipidir. NHL genelde lenfetik dokudan zengin olan üst gastrointestinal sistemden (GIS) köken alır. Yerleşim yeri kolon olan primer lezyon ender olarak görülmektedir.

**Olgu:** Altmış yedi yaşında erkek hasta karın ağrısı ve kısmi tıkanıklık bulguları ile başvurdu. Ultrasonografi ve bilgisayarlı tomografi ile tümör tanısı doğrulandıktan sonra sağ hemikolektomi uygulandı.

**Sonuç:** Patofizyoloji, tanı, tedavi ve tek başına cerrahi tedavinin sağkalımı üzerine etkileri tartışmalıdır. Hastalığın ender görülmesi ile ilişkili olarak randomize kontrollü çalışmaların olmaması sonucunda açık bir tedavi algoritması bulunmamaktadır. Bu konudaki raporlar az ve düşük hasta sayılı seriler olmak ile birlikte cerrahi combine tedavi ile birlikte ana tedavi seçeneğidir.

**Anahtar Kelimeler:** Kolon kanseri, Tıkanıklık, Primer B hücreli lenfoma

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### ABSTRACT

**Aim:** Diffuse large B cell lymphoma is a type of Non-Hodgkin Lymphoma (NHL) presenting with an aggressive course. NHL involvement usually occurs on the upper parts of gastrointestinal system (GIS) where lymphatic tissue is found intensively. However the settlement of primary lesion in colon is rare.

**Case:** The patient was sixty-seven years old male whose major complaints were abdominal colic pain due to partial intestinal obstruction. He underwent a right hemicolectomy after the tumor was confirmed by abdominal ultrasonography and computerized tomography.

**Conclusion:** Hereby the pathophysiology, diagnosis and the treatment of the disease is discussed on the unexpected survival of surgical treatment alone. Related to its rarity, due to the lack of randomized controlled trials, there is not a clear treatment algorithm for these cases. Reports on this subject in the literature are poor and limited to case reports or brief series. However, surgery is still the main treatment option with combined therapies.

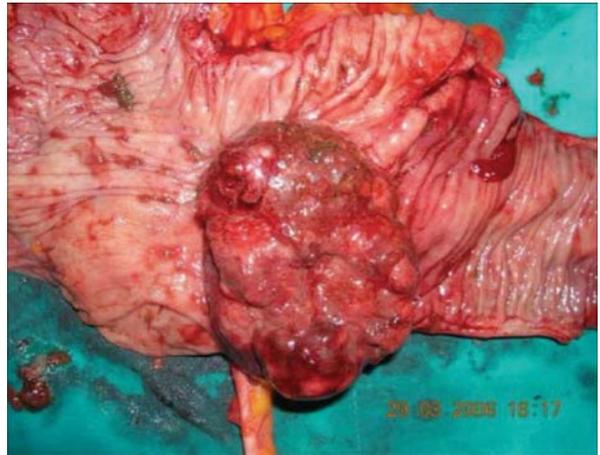
**Key words:** Colon Cancer, Obstruction, Primary B-Cell Lymphoma

### Introduction

Non-Hodgkin Lymphoma (NHL) accounts for approximately 20% of extra nodal involvement. Although NHL usually exists on the upper parts of the gastrointestinal system (GIS) where lymphatic tissue is found intensively, the settlement of primary lesion in colon is seen only in rare cases.<sup>1</sup> The involvement of the GIS is 1-4% and colon is nearly 0.1%. It is seen at the 5th and 6th decades of life and mostly in man.<sup>2</sup> Diffuse large cell lymphoma with B cells is a subtype of NHL with an aggressive course.<sup>3</sup> Immune suppression, HIV infection and using steroids are blamed as predisposing conditions. Certain reasons are not clear. Lack of specific symptoms can lead to delayed diagnosis in 35-65% of patients, thus surgical treatment options are either urgent or emergent.<sup>4</sup>

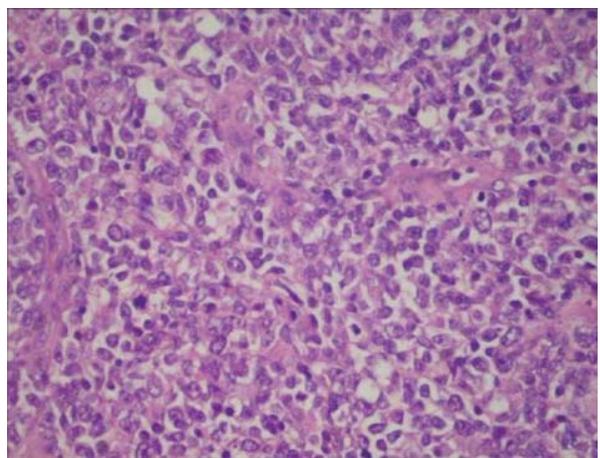
### Case

A 67-year old man was admitted to hospital with complaint of suspicious partial mechanical obstruction symptoms such as colic pain, nausea and changes in the defecation habits. His medical history was unremarkable. Abdominal examination revealed an abdominal mass in the right lower quadrant with minimal distension. There was no peripheral lymphadenopathy in routine examination. The rest of the physical examination was regular. Laboratory data and tumor markers comprised normal values except air-fluid levels in the abdominal X-rays and hypochromic microcytic anemia. Ultrasonography revealed a 7 cm solid abdominal mass at the ascending colon and computerized tomography (CT) scan confirmed these findings. Colonoscopy was not sufficient because of inadequate cleaning. Meanwhile the result of biopsy was reported as non-specific. A semi-elective laparotomy was scheduled. After laparotomy, a tumor arising from the ascending colon and small bowel dilatation was observed without local invasion or distant metastasis. A right hemicolectomy was performed (Figure 1). The postoperative course was uncomplicated and he was discharged on 6th day of surgery. Histopathology examination revealed a 7x6 cm tumor located at the ascending colon with no serosal involvement and final diagnosis was reported as diffuse large cell lymphoma with B cells (Figure 2). No metastasis was detected in harvested eleven lymph nodes. All surgical margins were clear. Immunohistochemical staining was positive for CD20, bcl-6 and CD30 and negative for CD3 and CD10. Ki-67 proliferation index was



*Figure 1. Macroscopic view of the tumor.*

80% positive. In the postoperative course, systemic involvement could not be proven with bone marrow biopsy, peripheral blood smear test and thorax CT scan. Chemotherapy couldn't be administered because of the patient's refusal. There was no sign of recurrence in physical examination, laboratory and radiologic studies or additional therapies at the postoperative course during the first two year. Laboratory data and tumor markers comprised of normal values. However, after the second year, the patient rejected follow-up and treatment offers and could be reached only via telephone. He did not have any complaints that may be associated with a relapse at the end of the fourth year and he was out of follow up and contact. We have no information about prognosis from that time.



*Figure 2. Microscopic view of the tumor (HEEx40). Tumor cells with big nucleolus and atypical mitosis*

## Discussion

For the diagnosis of primary colon lymphoma, liver and spleen must be free of disease. There shouldn't be, any other focus or a lymphadenopathy at the other parts of the body.<sup>5</sup> Nearly 80% of the lymphomas settled in the colon are originated from B cells. It is not possible to macroscopically distinguish colon lymphoma from other primary tumors. These tumors don't have a specific clinic presentation. As in other lesions of colon, generally the most frequent symptoms are non-specific such as abdominal pain, palpable mass, anemia, weight loss, diarrhea, rarely fever and appetite loss. Symptoms usually develop secondary to anemia and obstruction. A palpated mass may indicate an advanced stage disease. Wide range of variations can be shown morphologically from small polypoid lesions to widespread diseases with diffuse involvement.<sup>6</sup> A preoperative tissue diagnosis may be acquired by colonoscopy, however, adequate tissue specimens are needed for full immunohistochemical staining. Some distinctive features may be apparent on CT scanning of the abdomen but none of them are certain. Usually definitive diagnosis can only be established with immunohistochemical studies identifying surface antigens and the histopathological observation of

operation materials.<sup>7,8</sup> Nowadays, the PET-CT scan has been shown to have a greater sensitivity (97%) and specificity (100%) for staging of NHL and is superior to conventional CT scan in detecting recurrence and monitoring the response to chemotherapy.<sup>9</sup> Even if in the existence of the systemic involvement, surgical resection should be applied not only for the diagnosis but also decreasing tumor burden. Patients with lymphoma having primary colon involvement undergo laparotomy more than the ones with GIS involvement, owing to frequent incidence of obstructions, perforation and bleeding. After surgical resection radiotherapy and chemotherapy, though it is debatable, are administered to increase survival.<sup>10</sup> In a clinic study, Doolabh *et al.* recommended that neoadjuvant radiotherapy is proposed in the lesions that are located in rectum. Surgery alone is not an adequate therapy for NHL, except the low-grade ones limited to the submucosa. The CHOP regime (cyclophosphamide, doxorubicin, vincristine and prednisone) is administered in the adjuvant therapy.<sup>7</sup> In recent years, some prospective trials have shown that adding rituximab to the standard CHOP regimen (R-CHOP) resulted better. Unfortunately, despite all these therapeutic efforts, 5-years of survival is reported between 27-55 %.<sup>10</sup>

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