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Case Report

# A Well-Differentiated Liposarcoma with History of Benign Prostatic: A Case Report

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**ABSTRACT**

Liposarcoma, a malignant tumor originating from fat cells, is a rare occurrence in the retroperitoneal region. Surgical resection is the standard method for treating this cancer. This type of tumor is classified into common subtypes, which include well-differentiated liposarcoma and dedifferentiated liposarcoma.

A 53-year-old male patient presented with lower left quadrant (LLQ) pain and melena for two weeks. Further diagnostic evaluation, including colonoscopy, revealed a 50 mm polyp in the hepatic flexure or distal of the ascending colon. The pathological assessment of the mass demonstrated a lipomatous lesion with a nuclear atypical lipomatous tumor, which was diagnosed as well-differentiated liposarcoma.

The patient underwent surgical treatment and was discharged following his recovery.

## Introduction

Liposarcomas (LPS) are malignant tumors that typically occur in middle age to elderly individuals. LPS accounts for approximately 15 to 20 % of all soft tissue tumors, making it a relatively infrequent occurrence when compared to other subtypes. LPS can be categorized into four subtypes, including dedifferentiated, myxoid, pleomorphic, and well-differentiated (also known as an atypical lipomatous tumor). Typically, well-differentiated LPS manifests as a gradually enlarging mass in the proximal and retroperitoneal regions. Differentiating between Well-differentiated LPS and benign adipocytic neoplasms (lesion diameter 5cm) can pose a vital challenge. Nonetheless, well-differentiated LPS is not potentially prone to metastasis and typically responds favorably to excision [1-2].

Thalassemia, an inherited hemoglobin disorder, can cause mild to severe anemia and requires transfusion therapy [3]. Iron overload, a common complication of thalassemia, is the leading cause of morbidity and mortality in patients due to its ability to enhance oxidative stress(OS), which increases the risk of chronic ailments such as prostate cancer and benign prostatic hyperplasia [4-5]. Numerous clinical investigations have confirmed a positive correlation between elevated OS levels and PCa and BPH [6-8]. In this study, we report a 53-year-old male with LPS and past medical history of minor thalassemia who adhered to a diet high in inflammatory components.

The authors declare no conflicts of interest.

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## Case Report

A 53-year-old male patient with co-morbid hypertension (HTN), benign prostatic hyperplasia (BPH), internal hemorrhoids, and minor thalassemia was admitted to the clinic. The patient had a past medical history of using several medications, including aspirin, finasteride, tamsulosin, propranolol, and spironolactone. The initial symptoms reported by the patient were manifestations of pain in the lower left quadrant (LLQ), and the presence of melena, which prompted the patient to urgently seek medical attention.

Upon evaluation of the patient's complaints suggestive of colonic pathology, a colonoscopy was ordered to investigate the source of symptoms. The first colonoscopy was performed on December 22nd, 2022. The patient was recommended to withhold oral intake for 48 hours and consume polyethylene glycol powder with 2 liters of clear fluids to evacuate the colon. After, deep sedation by an anesthesiologist, the colonoscopy procedure commenced by observing the rectum, sigmoid, hepatica flexure, and cecum, respectively. A huge polypoid mass measuring 80x50 mm was revealed within the ascending colon and hepatic flexure. Despite repeated efforts, resection of the lesion was not feasible (Figure 1). We decided to carry out re-exploration by means of colonoscopy to tattoo the size of the tumor. The patient was once again sedated by a qualified anesthesiologist, and the colonoscopy was initiated. The examination revealed the presence of internal hemorrhoids in the anus and some fresh blood in the left colon. Furthermore, the 50 mm polyp was identified once again within the hepatic flexure and distal of ascending colon, and a pathology specimen was taken for further assessment and preserved in formalin (as depicted in Figure 2).

The pathology specimen was sent to the laboratory for analysis. The specimen consisted of a portion of terminal ileum (6 cm measuring in length and 2 cm in diameter) attached to a portion of the colon (25 cm in length and 5 cm in diameter), and appendix (5 cm in length and 1.5 cm in diameter). Proximal and distal Ostia measurements were 2 and 2.5 cm, respectively. Omentum (measuring 15*12*2 cm) was also observed to be attached to the specimen. Upon opening, a 6.5 cm polypoid mass covered with cream mucosa was detected. Cut sections were slid and yellow with 5 cm and 11 cm distances from the ileocecal valve and distal margins. Furthermore, a spherical mass with a blackish discoloration measuring 3.2 cm was detected along the serosa. A spiral chest and abdominal CT scan was requested to observe any potential metastasis of the tumor after its excision.

General demographic characteristics of the patient provide on the table. This information includes the age of the patient (84 years old) and BMI.

According to the pathological findings, the colon wall has a lipomatous mass with a nuclear atypical lipomatous tumor as well-differentiated liposarcoma. The size of the tumor has been observed to be 6.5 cm and it extends from the submucosa to the muscularis propria. The omentum presents congested and free from tumor. The overlying colon mucosa above the tumor shows ulceration. Additionally, there are no indications of any type of tumor or malignancy present in the lymph nodes.

The abdominal and chest CT scan was requested for the purpose of assessing any potential abnormalities and monastics. The CT scan report indicated that there were no nodules or infiltrations in the lungs, nor any signs of pleural thickening or effusion. There were a few bilateral non-enhancing renal cortisol cysts measuring up to 24*16 mm on the right side. There was a 12 mm accessory spleen. In the bowel and stomach, there was a previous right hemicolectomy with normal anastomosis without evidence of recurrence. The patient's prostate was found to be enlarged, and bilateral inguinal hernias containing fat were also noted.

**Table 1- The general variable of the patient**

| **Varibles** | |
|---|---|
| Age (year) | 53 |
| Sex | Man |
| marital status | married |
| weight (kg) | 84 |
| waist circumference ] | 80 |
| Wrist circumference | 16 cm |
| cigarette smoker | No |
| BMI | 29 |
| Blood group | O+ |
| FBS (mg/dl) | 97 |
| WBC | 7.71*103 ul |
| RBC | 5.2 |
| Hemoglobin | 11.4 |
| Cr (mg/dl) | 0.9 |
| sodium (meq/l) | 135 |
| potassium (meq/l) | 3.6 |
| SGOT (AST) (IU/L) | 16 |
| SGPTB(ALT) (IU/L) | 10 |

| | |
|---|---|
| ALP (IU/L) | 155 |
| Bilirubin total | 1.2 |
| Bilirubin direct | 0.6 |

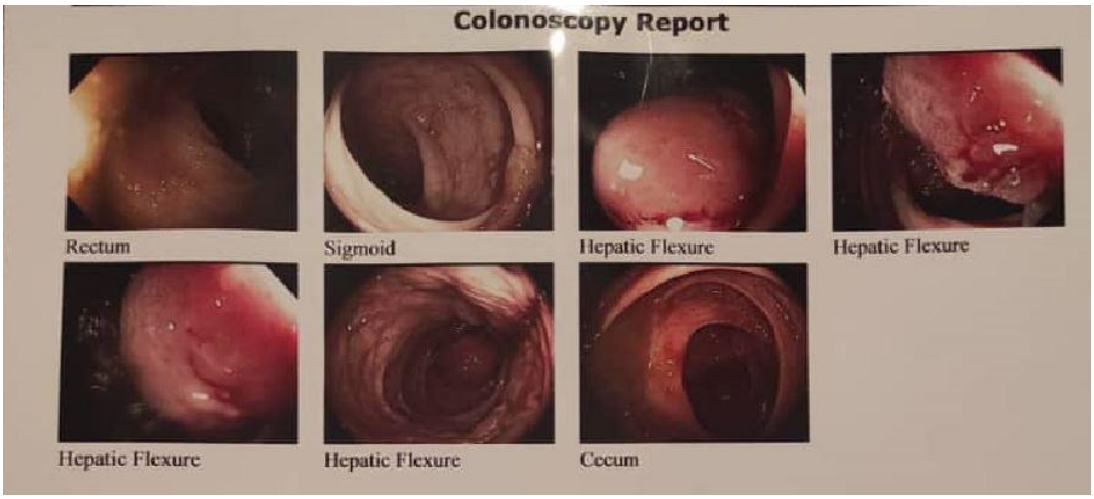


**Figure 1- The first colonoscopy of the patient for assessing the reason for melena.**

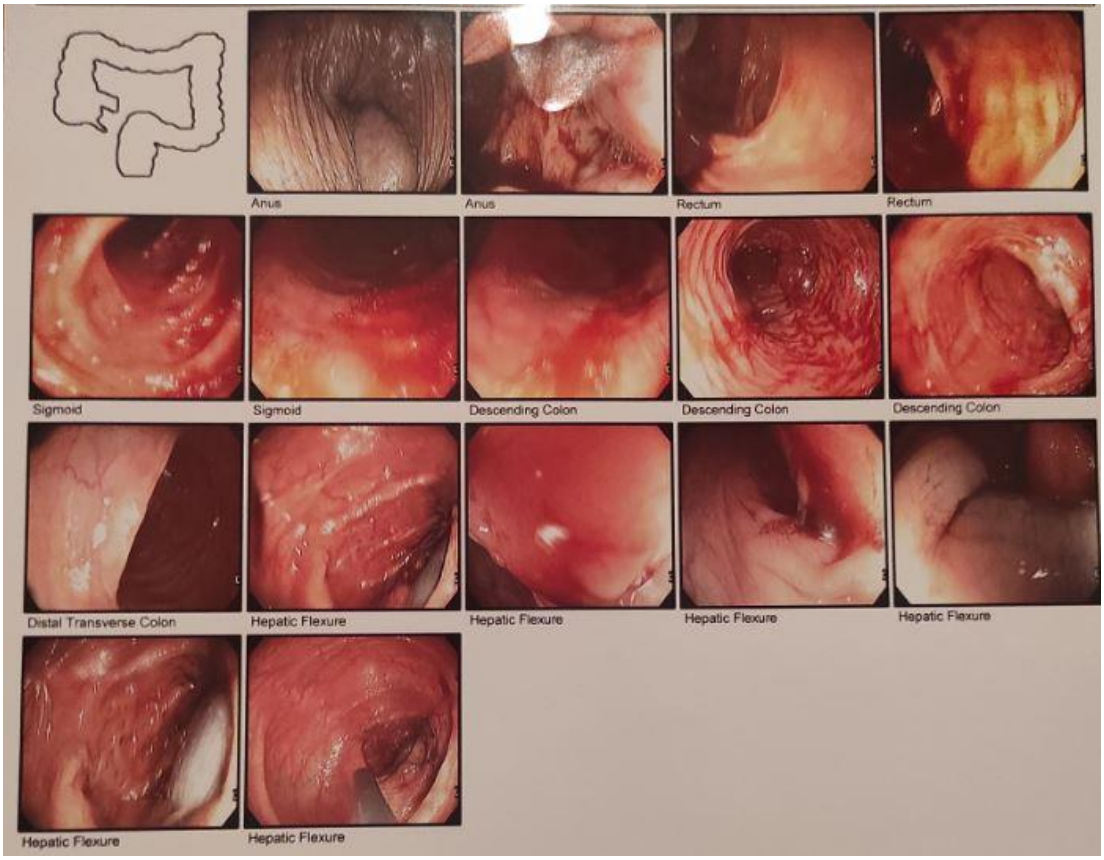


**Figure 2- The second colonoscopy for more evaluation and tattooing the size of the tumor and getting a pathological biopsy.**

## *Discussion*

WDL is typically characterized by a painless and gradual growth pattern that generally manifests during middle age. Notably, WDL does not exhibit metastatic potential and instead presents with a higher incidence of local recurrence, as previously reported [9]. Encouragingly, WDL lesions located superficially have

been shown to possess the most favorable prognosis across all sites. Previous studies showed that retroperitoneal sites of WDL have 63% local recurrence and 59 % for all lesions [9]. Krassen M. Kirov et al performed a study on individuals with retroperitoneal liposarcoma; In the study, a significant association was observed between malnourished patients with retroperitoneal liposarcoma and postoperative complications, as well as prolonged hospitalization [10]. Also, studies have indicated that retroperitoneal liposarcoma is linked to the excretion of insulin-like growth factor 2 (IL-GF-2). Thus, IL-GF-2 is significantly associated with resistance to hypoglycemia, and the administration of oral glucose proves ineffective in managing the condition [11-13].

## Conclusion

This case report presented a LPS patient with thalassemia background and it is novel case report in this area. However, several limitations exist since case-report studies cannot be generalized to encompass all individuals. Additionally, the assessment of various biochemical, plasma inflammation and cancer biomarkers was not feasible due to certain constraints. Furthermore, due to thalassemia, the evaluation of plasma antioxidant capacity for determining its correlation with iron storage remained unfeasible.

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