Hameed: Expression of SOX11 in mantle cell lymphoma

16 (94.12%) out of 17 cases with MCL, which was in agreement with the majority of previous studies.\cite{1,5,7,13-15}

On the other hand, SOX11 nuclear expression was negative in most cases of CLL/SLL and all FL, which may confirm that monoclonal antibodies are far more sensitive (94.12%) and specific (97.78%) than polyclonal antibodies and more useful for MCL detection as earlier mentioned by other works.\cite{12,16}

There was one case of MCL that lacks nuclear SOX11 expression in this work, this may be explained by variant of MCL which may show different clinical, phenotypic, and genetic characteristics. These cases presented with non-nodal MCL, leukemic phase and splenomegaly, with IGHV-mutated, and lacks SOX11 expression. On the other hand, classical types express SOX11 and may involve lymph nodes and other extranodal sites.\cite{17,18}

In addition to that, there was one case of CLL/SLL that expressed nuclear SOX11, this case may be cyclin D1 negative MCL presented as simulator to CLL/SLL, the differential diagnosis between MCL and CLL/SLL is crucial as MCL usually had aggressive clinical behavior. Both MCL and CLL share common phenotypic markers, usually CD19, CD20, and CD5. However, aberrant expression of these markers and the presence of cyclin D1 negative MCL may confuse the diagnostic process. For that, Wasik \textit{et al.} suggest that using SOX11 in diagnostic flow cytometry would be of great value for accurate and trustworthy diagnosis of MCL.\cite{8,19}

\section*{Conclusion}

Our study showed that SOX11 is a powerful diagnostic tool for MCL and may help in distinguishing it from other B-cell LPDs.

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Nil.

\section*{Conflicts of interest}

There are no conflicts of interest.

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Diagnosing jejunal adenocarcinoma in a man with severe iron deficiency anemia using pediatric colonoscopy set

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Abstract:
Bleeding from the small intestine is an uncommon condition, of about 5%–10% of all gastrointestinal (GI) hemorrhages. Small intestinal malignancies (SIMs) are very rare, accounting for only 1% of the whole GI malignancies. SIM has few and nonspecific symptom and signs as iron deficiency anemia, weight loss, abdominal pain, and upper and lower GI bleeding. Usually, the diagnosis was delayed and most of them present in advances stage. GI stromal tumor, adenocarcinoma, carcinoid tumor, and lymphomas are among the common malignancies. Diagnosis of such cases is difficult as the upper and lower GI endoscopy often normal, capsule visualized endoscopy may show bleeding site and lesion, biopsy also a difficult issue as in our case. Here, we present a 44-year-old male patient who complained of lethargy and fatigue for 2 months duration. On physical examination, he was unremarkable apart from pallor. The initial investigations showed moderate hypochromic microcytic anemia, with low serum iron studies. The stool examination for occult blood was positive for that we did upper and lower GI endoscopy which was normal. On capsule visualized endoscopy revealed a bleeding small intestinal lesion (jejunum) later, we used pediatric colonoscopy for deep enteroscopy which was successful in identifying the lesion and biopsy took from the lesion confirming the diagnosis of GI adenocarcinoma. Surgical removal of tumor performed and the patient treated by oncologist after proper staging had been done. We emphasized that successful use of other diagnostic tools as using pediatric colonoscopy set for diagnosing such rare tumor is an option.

Keywords:
Adenocarcinoma, colonoscopy, endoscopy, iron deficiency anemia, small bowel malignancy

Introduction
Small intestine bleeds remains a relatively uncommon condition, occluding 5%–10% of all cases admitted with gastrointestinal (GI) hemorrhages.[1] New progressions appeared in diagnosing intestinal bleeds such as video capsule endoscopy (VCE), radiographic imaging, and deep enteroscopy. These new techniques are very useful in finding the site of bleeding in small intestinal. For that reason, the term obscure intestinal bleeding is reserved for that condition were the site of bleeding could not be visualized even by above new advances.[3] Small intestinal bleeding should be considered in those patients negative upper and lower endoscopy, with the normal second diagnostic look by push enteroscopy, and or colonoscopy.[3] Small intestinal first-line investigation is VCE.[4] Any types of deep enteroscopy such as colonoscopy in our case (although better results can be obtained using balloon enteroscopy) can be performed when endoscopic examination and treatment are required. Video capsule endoscopy (VCE) better to be done before doing deep enteroscopy if there is no contraindication. If we suspect obstruction before or after negative VCE, we must do computed tomographic enterography (CTE).[6] Angiography should be performed emergently when there is acute overt hemorrhage in the

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The intestinal epithelium has a self-renewing capacity, totally replaced in a few days. The carcinogenesis seems to be related to the bacteria-host interaction, with secondary changes in the intestinal stem cell function. Primary small intestinal malignancies are usually diagnosed at a late stage, due to nonspecific complaints related to the nature of the disease among the first presentations of such tumors may be an acute medical emergency. While in a symptomatic disease, more than half of the patients present with a metastatic condition. Chronic inflammation and hyperproliferation of the intestinal stem cells usually initiate malignant transformation.

Histologically, many types of neoplasm occur in the small bowel, among the common subtypes are GI stromal tumors, adenocarcinomas, carcinoids, or lymphomas.

Fortunately, malignant tumors of the small bowel are uncommon, and the 5-year overall survival rate for most cancers are improved from 30% to 66% between 1975 and 2006.

According to the surveillance, epidemiology, and end results stat fact sheets, the estimated new cases of small intestinal cancer for 2015 was 2.2 per 100,000 men and women per year, with almost 66.9% of the patients are alive at 5 years.

**Case Report**

A 44-year-old male patient presented with iron deficiency anemia and melena. There was no previous medical or any surgical history. All laboratory investigation was normal apart from microcytic hypochromic anemia for which he received venofer infusion for the past 3 months. Both upper and lower GI tract endoscopy was normal. VCE revealed active small intestinal bleeding [Figure 1]. We used pediatric colonoscopy for deep enteroscopy which was successful in identifying a bleeding tumor [Figure 2]. We performed to remove the bleeding tumor [Figure 2], and the histopathology of the removed segment confirmed the adenocarcinoma [Figure 3a-d]. The patient was appropriately managed by oncologist after proper staging.
Conclusion

Bleeding secondary to small bowel malignancies are associated with minimum signs and symptoms, and often their diagnoses are delayed. Upper GI endoscopy using pediatric colonoscopy set may be a useful tool in early diagnosis and treatment of small bowel malignancies. The early diagnosis will affect overall survival and mortality rate.

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Conflicts of interest
There are no conflicts of interest.

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The challenge of microangiopathic hemolytic anemia

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Abstract:
Microangiopathic hemolytic anemia (MAHA) is a Coomb’s-negative hemolytic anemia characterized by red cell fragmentation (schistocytes). Thrombotic microangiopathy anemia, including thrombotic thrombocytopenia and hemolytic-uremic syndrome, malignant hypertension, preeclampsia are among the most common causes. We present a case of MAHA presenting with thrombocytopenia initially diagnosed as MAHA secondary to thrombotic thrombocytopenic purpura and received five sessions plasmapheresis without improvement but with worsening of anemia and thrombocytopenia. On further inquiry, glucose-6-phosphate dehydrogenase deficiency was identified, and the patient showed dramatic recovery after the trial of B12 and folate.

Keywords:
Fragmentation syndrome, glucose-6-phosphate dehydrogenase deficiency, megaloblastic anemia

Introduction
Microangiopathic hemolytic anemia (MAHA) is a Coomb’s-negative hemolytic anemia characterized by red cell fragmentation (schistocytes). Thrombotic microangiopathy anemia, including thrombotic thrombocytopenia and hemolytic-uremic syndrome, malignant hypertension, preeclampsia are among the most common causes.

Case Report
A 35-year-old male previously healthy was referred to the hematology department of Merjan Teaching Hospital with a 1-week history of progressive pallor, headache, fever and red color urine. He denied any history of recent exposure to medications. On examination, the patient was pale, jaundiced; petechia was noted on the extremities and trunk. There are no congested tonsils, lymphadenopathy, or hepatosplenomegaly.

Complete blood count (CBC): Hb 5 g/dL, white blood cell (WBC) 4.4 × 10^9/L, platelet 12 × 10^9/L, and reticulocyte 30%. Blood film showed polychromasia, oval, and crenated cells, and many fragmented cells are seen [Figure 1] with schistocyte count 4%. The following investigations were done including Coomb’s test was negative, glucose-6-phosphate dehydrogenase (G6PD) assay was deficient, lactate dehydrogenase (LDH) was 2250 U/L, haptoglobin level-low normal, while antinuclear antibody/anti-DNA and prothrombin time/partial thromboplastin time (PT/PTT) were normal. Bone marrow examination showed erythroid hyperplasia. Liver and renal function tests are normal apart from mild elevation of unconjugated bilirubin. Because of these findings, a presumptive diagnosis of thrombotic thrombocytopenic purpura was raised, and the patient was started on therapeutic plasma exchange (plasmapheresis) for five sessions without objective response in CBC/blood film regarding platelet count, schistocyte count, or LDH with hemoglobin continue to drop with rising reticulocyte count. Further tests for vasculitis including C3, C4 and pANCA and cANCA were negative. Plasmapheresis was stopped, and the patient received a trial of intravenous