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# A RARE CASE OF YOUNG SUDANESE MAN WITH MASSIVE ASCITES DUE TO VITAMIN B12 DEFICIENCY

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**ABSTRACT**
- Megaloblastic anemia is condition in which the bone marrow produces unusually large, structurally abnormal, immature red blood cell, megaloblast from asynchronous maturation of the nucleus and cytoplasm of the erythroblast. It affect male and females in equal numbers Common causes of megaloblastic anemia are vitamin B12 and folate deficiency in tropical area is most probably due to tapeworm infestation, is much more common starting in early life, and persists across the life span. - Megaloblastic anemia can present with various gastrointestinal, hematological, and neurological manifestations. Here we present A30year'sold male patient presented to us at Elmak Nimir university hospital with ascites was investigated and diagnosed having nutritional megaloblastic anemia, after other causes were excluded. Ascites responded well to hydroxocobalamin injection supplementation and ascites subsided totally within less than 3weeks. This case revealed that there is mechanism of megaloblastic anemia to cause ascites.

**KEYWORD:** Ascites, vitb12, young man.

## ❖ CASE REPORT

30 years old male patient presented to us at Almak Nimir University Hospital with abdominal distension and mild lower limbs edema on physical examination, he was pale and have ascites by shifting dullness,figure NO(1) with mild pitting lower limbs edema.

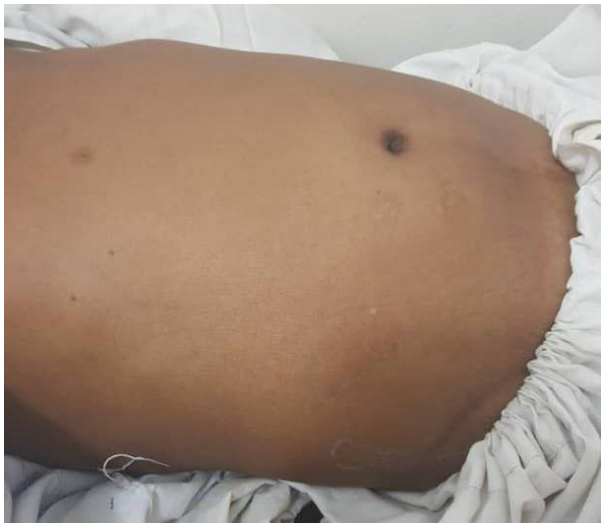

**Figure No (1).**

Investigation done revealed Hb 9.6 gm/dl, with MCV:100.8 FL, peripheral blood picture showed hypersegmented neutrophils, LFT within normal, ascites fluid analysis shows (10cells/ml, LDH70IU/ML, SAAG.47g/dl, glucoselevel117mg/dl), no bacterial growth, and ascites fluid aspiration for cytology is negative for malignant cell abdominal US shows massive ascites and spleen 14cm with the rest normal, Figure No (2).


**Figure No (2).**

CT abdomen shows massive abdomen o pelvis fluid collection with normal abdominal organs apart from small size kidneys with no backpressure change, no pelvis mass and no lymphadenopathy. **Figure No (3).**

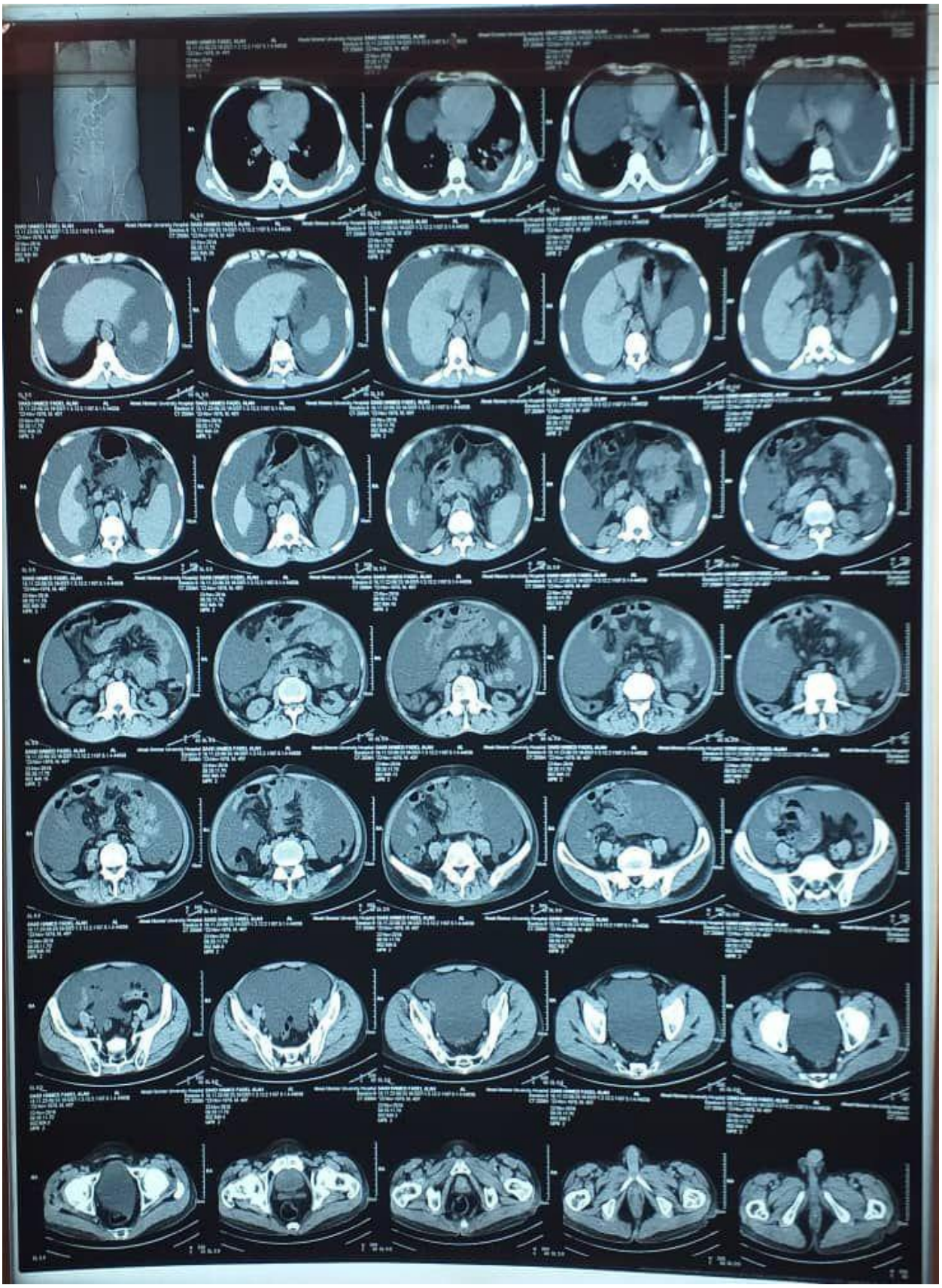

**Figure No (3).**

Patient started vitamin B12Injection ascites subsided gradually within less than 3weeks Figure No (4)

Abdominal distension after

**Figure No (4)**

## ❖ DISCUSSION

Megaloblastic anemia with ascites is rare presentation. The leading and major cause were vitaminB12 and folate deficiency because play a role in DNA synthesis, may result from poor intake or malabsorption the prevalence of vitamin B12deficiency in younger people is 5-7 %.[1, 2]

Patient may be asymptomatic, but may present with headache, fatigue, pale skin, tachycardia, dizziness, diarrhea, nausea,appetite loss, also jaundice, neurological symptoms like numbness, seizure, vision loss, psychiatric manifestation also reported "depression, insomnia, panic attack with cobalamin deficiency in particular cases.[3]

Many factors participate in causing megaloblastic anemia like low intake gastric and intestinal surgery, tapeworm infestation, pregnancy, primary bone marrow disorder, inherited intrinsic factors deficiency and idiopathic cause.[4]

The pathophysiology of this anemia is ineffective erythropoiesis 2ndry to intramedullary apoptosis of hematopoietic cells precursors result from DNA synthesis abnormalities.[5]

Megaloblastic anemia is most often due to hypovitaminosis "vitamin B 12and folate deficiency "which are necessary for DNA synthesis.[6]

Hundred ninety-three peoples who have vitamin B 12deficiency were studied, among them only one has ascites.[7]

Management of megaloblastic anemia centers on IM Injection of hydroxocobalamin1000ug daily for the first 2week's then weekly for first month then monthly for life, we add folic acid supplementation 1-5mg daily/orally at day 4of Injection.[5]

## ❖ CONCLUSION

Megaloblastic anemia has complex pathogenesis and possible different causes with multiple presentations, and rarely presented with ascites, which is treatable.

This case illustrate the association between megaloblastic anemia and ascites.

After rules out infections neoplasm, liver cirrhosis, which arethecommon causes of ascites in young patients with risk factors and features of vitamins deficiencies, we should consider this possibly etiological cause of ascites. Treatment with vitaminB12 rapidly improve the ascites.

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