

LETTER

# Bicytopenia as a paraneoplastic syndrome for pseudomyxoma peritonei. Hematologic manifestations of a subtle disease

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## **Dear editor**

We have read with great interest the paper of de Oliveira et al, in which the authors report the case of a 76-year-old woman who presented with increased abdominal girth and dyspnea for 2 weeks. After extensive investigations, the patient was diagnosed with an abdominal pseudomyxoma peritonei and underwent right oophorectomy, omentectomy, and pseudomyxoma debulking. This disease is correctly characterized by the physicians as ranging from benign to borderline, to frankly malignant behavior and therefore, tends to be associated with misdiagnosis. This leads to its discovery in advanced stages, making this disease a challenging entity with potentially fatal complications. The described clinical scenario of pseudomyxoma peritonei is a pseudomyxoma clinically present with a variety of unspecific and uncommon signs and symptoms, except in advanced disease, when it is complicated by an increased abdominal girth and complaints of abdominal pain related to intestinal obstruction. The obstruction appears as a result of disseminated mucinous tumor cells and ascites, presenting at laparotomy with "jelly belly". The best diagnostic tool is a computed tomography (CT) exam, which shows a characteristic pattern of mucinous accumulation, even though magnetic resonance imaging (MRI) T1- and T2-weighted techniques permit a very sensitive differential diagnosis between mucus and ascites. Tumor markers are used for the follow up of patients that undergo debulking surgery.

All these investigations were used by our colleagues who reported that their case had an absence of leukocytosis, with neutrophilia and an increased value for C-reactive protein. In the current letter, we would like to point out that hematologic parameters associated with pseudomyxoma peritonei are not necessarily the ones described in the current case report as we have experience with a similar tumor with bicytopenia, confirmed by a bone marrow aspiration. As we have no clear reason for the clinical evolution, we can classify the bicytopenia as a paraneoplastic syndrome instead of pseudomyxoma peritonei.

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# **Disclosure**

The authors report no conflicts of interest in this work.

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## **Authors' reply**

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### **Dear editor**

We thank Tomuleasa et al for their perceptive comments. In their letter, entitled "Bicytopenia as a paraneoplastic syndrome for pseudomyxoma peritonei. Hematologic manifestations of a subtle disease", they mention that they have experience with pseudomyxoma peritonei with bicytopenia.

As we mentioned in our case report, a 76-year-old woman presented to us with increased abdominal girth and dyspnea

for 2 weeks. On work-up, she was diagnosed as a case of pseudomyxoma peritonei. Laboratory investigations showed normal hemoglobin, platelet, and white blood cell values. The only change in hematological parameters was neutrophilia.

In fact, there are no typical changes in hemogram in this condition. Pérez-Holanda et al¹ and Grupta et al² both reported clinical cases of pseudomyxoma peritonei with normal values of hematological parameters. In contrast, Kuan et al³ reported a case in which laboratory investigations revealed leukocytosis. Furthermore, in one of the two clinical cases reported by Li et al⁴, the patient had anemia.

Indeed, in pseudomyxoma peritonei, there may or may not be changes in hematological parameters. Routine laboratory parameters are seldom helpful in making the diagnosis of pseudomyxoma peritonei.<sup>4</sup>

#### **Disclosure**

The authors report no conflicts of interest in this work.

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