

## CLINICAL IMAGE

### A case of feverish neutropenia

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## Introduction

A 64-year-old woman, diagnosed with diabetes mellitus and arterial hypertension in her 50s, presented with fever and malaise. She had been taking pregabalin for the last 3 weeks because of peripheral neuropathy. During that period no other drug was started. At physical examination only slight hepatomegaly was found. A blood count showed mild anemia (Hb 11.2 g/dL) and leukopenia (WBC  $1.32 \times 10^9/L$  with neutrophils 5%). A buffy coat smear showed many lymphocytes and monocytes, few eosinophils and very rare neutrophils (Fig. 1, left, 400 $\times$ ). Bone marrow aspirate was normocellular with hyperplasia of the granuloblastic lineage. There were rare scattered erythroblasts and selective deficiency of maturing gran-

#### Key Clinical Message

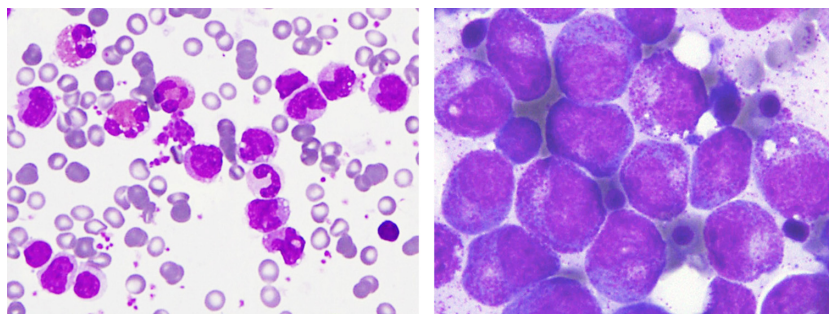
A case of feverish benign neutropenia occurring in a diabetic patient receiving pregabalin for peripheral neuropathy is reported. Although pregabalin-induced neutropenia is very rare, it is important to keep in mind that this drug like other anticonvulsants used for neuropathic pain, can cause severe neutropenia.

#### Keywords

Bone marrow, neutropenia, pregabalin, promyelocyte.

ulocytic cells with clear predominance of promyelocytes with heavy granulation (Fig. 1, right, 1000 $\times$ ). Megakaryocytic lineage was normal.

These laboratory and morphologic features suggested a diagnosis of benign neutropenia possibly drug-associated. Thus, pregabalin was discontinued and therapy with granulocyte colony stimulating growth factor and empirical antibiotics (ceftriaxone and levofloxacin) was administered. The fever disappeared and white cell count returned to normal over the next week. All microbiologic cultures were negative. The temporal correlation between the initiation of pregabalin and the onset of feverish neutropenia as well as the normalization of white cell count after drug discontinuation strengthened the diagnosis.



**Figure 1.** Buffy coat smear (left) and bone marrow aspirate (right).

Although pregabalin-induced neutropenia is very rare and its exact prevalence is so far unknown, it is important to keep in mind that this drug like other anticonvulsants used for neuropathic pain can cause neutropenia [1–4].

On the other hand, the morphologic features of bone marrow promyelocytes, especially the presence of a clear Golgi zone and the absence of Auer rods, may be helpful in distinguishing them from dysplastic or leukemic promyelocytes allowing the differential diagnosis from a malignant disorder.

### **Conflict of Interest**

None declared.

### **References**

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