

**Name of Journal:** *World Journal of Clinical Cases*

**Manuscript NO:** 57873

**Manuscript Type:** CASE REPORT

**Eighty-year-old man with rare chronic neutrophilic leukemia caused by *CSF3R* T618I mutation: A case report and review of literature**

Ya-Ping Li, Na Chen, Xian-Mei Ye, Yong-Shou Xia

## Abstract

### BACKGROUND

Chronic neutrophilic leukemia (CNL) is a rare bone marrow proliferative tumor and a heterogeneous disorder. In 2016, World Health Organization included activating mutations in the gene for *CSF3R* as one of the diagnostic criteria with *CSF3R* T618I being the most common mutation. The disease is often accompanied by splenomegaly,

## Match Overview

1 **Crossref** 27 words  
Huinu He, Ning Wu. "A 75-year-old woman with primary ar ...  
phospholipid syndrome presenting with livedoid vasculopath 1%



ALL

IMAGES

VIDEOS

213 Results

Any time ▾

## CSF3R T618I is a highly prevalent and specific mutation in ...

<https://www.researchgate.net/publication/236252852...>

Apr 22, 2013 · In addition, the CSF3R mutation is specific for chronic neutrophilic leukemia (CNL) and detected in more than 90% of cases (6). Driver mutations of ...

## [PDF] A CSF3R T618I Mutation in a Patient with Chronic ...

[https://www.jstage.jst.go.jp/article/internalmedicine/55/4/55\\_55.5059/\\_pdf/-char/en](https://www.jstage.jst.go.jp/article/internalmedicine/55/4/55_55.5059/_pdf/-char/en)

The CSF3R T618I mutation causes a lethal neutrophilic neoplasia in mice that is re-sponsive to therapeutic JAK inhibition. *Blood* 122: 3628-3631, 2013. 15. Dao K-HT, Solti MB, Maxson JE, et al. Significant clinical re-sponse to JAK1/2 inhibition in a patient with CSF3R-T618I-positive atypical chronic myeloid leukemia. *Leuk Res Rep* 3: 67-69,2014.

## Chronic neutrophilic leukemia: 2018 update on diagnosis ...

<https://onlinelibrary.wiley.com/doi/full/10.1002/ajh.24983>

Yuichi Ikeda, Jun Yamanouchi, Katsuto Takenaka, Effects of ruxolitinib on secondary myelofibrosis following chronic neutrophilic leukemia with the CSF3R T618I mutation, *Annals of Hematology*, 10.1007/s00277-020-04185-1, (2020).

Cited by: 10

Author: Michelle A. Elliott, Ayalew Tefferi

Publish Year: 2018

## Chronic Neutrophilic Leukemia: Current and Future ...

<https://www.sciencedirect.com/science/article/pii/S2152265018313703>

Mar 01, 2019 · A. Pardanani, T.L. Lasho, R.R. Laborde, et al. CSF3R T618I is a highly prevalent and specific mutation in chronic neutrophilic leukemia *Leukemia*, 27 ...

Cited by: 1

Author: Sangeetha Venugopal, John Mascarenhas

Publish Year: 2019

## [PDF] Clonal evolution in a chronic neutrophilic leukemia patient

<https://www.tandfonline.com/doi/pdf/10.1080/16078454.2019.1613291>

have a diagnosis of chronic neutrophilic leukemia. At a follow-up at 7 months, in addition to the CSF3R c.2373G>A (p.W791\*) truncated mutation, another CSF3R mutation appeared as c.1853C>T(p.T618I). Discussion and conclusion: We present the first patient with a diagnosis of chronic

ALL IMAGES VIDEOS

733 Results Any time ▾

[\[PDF\] A CSF3R T618I Mutation in a Patient with Chronic ...](#)[https://www.jstage.jst.go.jp/article/internalmedicine/55/4/55\\_55.5059/\\_pdf/-char/en](https://www.jstage.jst.go.jp/article/internalmedicine/55/4/55_55.5059/_pdf/-char/en)

The **CSF3R T618I** mutation causes a lethal **neutrophilic** neoplasia in mice that is re-sponsive to therapeutic JAK inhibition. *Blood* 122: 3628-3631, 2013. 15. Dao K-HT, Solti MB, Maxson JE, et al. Significant clinical re-sponse to JAK1/2 inhibition in a patient with **CSF3R-T618I**-positive atypical **chronic myeloid leukemia**. *Leuk Res Rep* 3: 67-69,2014.

[\(PDF\) A CSF3R T618I Mutation in a Patient with Chronic ...](#)<https://www.researchgate.net/publication/294576126...>

We herein report a case study of a patient with CNL with a **T618I** point mutation on the **CSF3R** gene who showed severe bleeding. Figure3.The direct sequencing of exon 14 of the **CSF3R** gene.

[Oncogenic CSF3R Mutations in Chronic Neutrophilic Leukemia ...](#)<https://www.nejm.org/doi/full/10.1056/NEJMoa1214514>

Panel A shows the location and recurrence of **CSF3R** mutations found in samples from 16 of 27 patients with **chronic neutrophilic leukemia** (CNL) or atypical **chronic myeloid leukemia** (CML), along with ...

Cited by: 437

Author: Julia E. Maxson, Jason Gotlib, Daniel A. Pol...

Publish Year: 2013

[Chronic neutrophilic leukemia: 2018 update on diagnosis ...](#)<https://onlinelibrary.wiley.com/doi/full/10.1002/ajh.24983>

Disease Overview and Diagnosis. **Chronic neutrophilic leukemia** (CNL) is a potentially aggressive myeloproliferative neoplasm, for which current WHO diagnostic criteria include leukocytosis of  $\geq 25 \times 10^9 /L$  of which  $\geq 80\%$  are neutrophils, with  $< 10\%$  circulating neutrophil precursors with blasts rarely observed. In addition, there is no dysplasia, nor clinical or molecular criteria for other ...

Cited by: 10

Author: Michelle A. Elliott, Ayalew Tefferi

Publish Year: 2018

[\[PDF\] Clonal evolution in a chronic neutrophilic leukemia patient](#)<https://www.tandfonline.com/doi/pdf/10.1080/16078454.2019.1613291>

have a diagnosis of **chronic neutrophilic leukemia**. At a follow-up at 7 months, in addition to the **CSF3R** c.2373G>A (p.W791\*) truncated mutation, another **CSF3R** mutation appeared as c.1853C>T(p.T618I). Discussion and conclusion: We present the first patient with a diagnosis of **chronic**

Author: Qi-Guo Zhang, Jing Wang, Wen-Yu Gon...

Publish Year: 2019

[Leukemia Cutis in Chronic Neutrophilic Leukemia Associated ...](#)



ALL IMAGES VIDEOS MAPS NEWS SHOPPING

722 Results Any time ▾

### [PDF] A CSF3R T618I Mutation in a Patient with Chronic ...

[https://www.jstage.jst.go.jp/article/internalmedicine/55/4/55\\_55.5059/\\_pdf/-char/en](https://www.jstage.jst.go.jp/article/internalmedicine/55/4/55_55.5059/_pdf/-char/en)

The **CSF3R T618I** mutation causes a lethal **neutrophilic** neoplasia in mice that is re-sponsive to therapeutic JAK inhibition. Blood 122: 3628-3631, 2013. 15. Dao K-HT, Solti MB, Maxson JE, et al. Significant clinical re-sponse to JAK1/2 inhibition in a patient with **CSF3R-T618I**-positive atypical **chronic myeloid leukemia**. Leuk Res Rep 3: 67-69,2014.

### (PDF) A CSF3R T618I Mutation in a Patient with Chronic ...

<https://www.researchgate.net/publication/294576126...>

We herein **report a case** study of a patient with CNL with a **T618I** point **mutation** on the **CSF3R** gene who showed severe bleeding. Figure3.The direct sequencing of exon 14 of the **CSF3R** gene.

### Oncogenic CSF3R Mutations in Chronic Neutrophilic Leukemia ...

<https://www.nejm.org/doi/full/10.1056/NEJMoa1214514>

Panel A shows the location and recurrence of **CSF3R** mutations found in samples from 16 of 27 patients with **chronic neutrophilic leukemia** (CNL) or atypical **chronic myeloid leukemia** (CML), along with ...

**Cited by:** 437 **Author:** Julia E. Maxson, Jason Gotlib, Daniel A. ...

**Publish Year:** 2013

### Chronic neutrophilic leukemia: 2018 update on diagnosis ...

<https://onlinelibrary.wiley.com/doi/full/10.1002/ajh.24983>

Disease Overview and Diagnosis. **Chronic neutrophilic leukemia** (CNL) is a potentially aggressive myeloproliferative neoplasm, for which current WHO diagnostic criteria include leukocytosis of  $\geq 25 \times 10^9$  /L of which  $\geq 80\%$  are neutrophils, with  $< 10\%$  circulating neutrophil precursors with blasts rarely observed. In addition, there is no dysplasia, nor clinical or molecular criteria for other ...

**Cited by:** 10 **Author:** Michelle A. Elliott, Ayalew Tefferi

**Publish Year:** 2018

### [PDF] Clonal evolution in a chronic neutrophilic leukemia patient

<https://www.tandfonline.com/doi/pdf/10.1080/16078454.2019.1613291>

have a diagnosis of **chronic neutrophilic leukemia**. At a follow-up at 7 months, in addition to the **CSF3R**

## Chronic neutrophilic leukemia

Rare Myeloproliferative Neoplasm

Chronic neutrophilic leukemia is a rare myeloproliferative neoplasm that features a persistent neutrophilia in peripheral blood, myeloid hyperplasia in bone marrow, hepatosplenomegaly, and the absence of the Philadelphia chromosome or a BCR/ABL fusion gene.

Wikipedia

### People also search for

[Chronic Myeloid Leukemia](#)

[Myelofibrosis](#)

[Chronic myelomonocytic leukemia](#)

[Dermatofibrosarcoma protuberans](#)

[Juvenile myelomonocytic leukemia](#)

[See more ▾](#)

Data from: Wikipedia

[Suggest an edit](#)