# Article information:

(15) (PDF) Clinical characteristics and prognostic analysis of acute myeloid leukemia patients with PTPN11 mutations
<https://www.researchgate.net/publication/365033111_Clinical_characteristics_and_prognostic_analysis_of_acute_myeloid_leukemia_patients_with_PTPN11_mutations>

# Article summary:

1. This study investigated the clinical characteristics and prognostic impact of PTPN11 mutations in patients with acute myeloid leukemia (AML).

2. PTPN11 mutations co-occurred more commonly with DNMT3A, NPM1, and FLT3 internal tandem duplication mutations.

3. Patients with AML and PTPN11 mutations had a negative prognostic effect on overall survival (OS) and event-free survival (EFS). Allo-hematopoietic stem cell transplantation (HSCT) abrogated the negative effect of mutations in PTPN11.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

This article is a retrospective study that investigates the clinical characteristics and prognostic impact of PTPN11 mutations in patients with acute myeloid leukemia (AML). The authors used targeted next-generation sequencing technology to examine the prevalence of PTPN11 mutations in 74 AML patients treated at their institution. The results showed that PTPN11 mutations co-occurred more commonly with DNMT3A, NPM1, and FLT3 internal tandem duplication mutations. Furthermore, compared to PTPN11 wild-type (WT) patients, those with PTPN11 mutation-positive AML had higher white blood cell (WBC) and platelet (PLT) counts. In terms of prognosis, the authors found that these patients had an adverse effect on OS (62.5%) and EFS (50%). However, allo-HSCT was able to abrogate this negative effect; OS and EFS were longer for those who received transplantation than those who did not undergo allo-HSCT.

The article is generally reliable as it provides evidence from a large sample size of 74 patients which increases its validity. Furthermore, the authors have provided detailed information about their methods which allows readers to assess the trustworthiness of their findings. Additionally, they have discussed potential limitations such as selection bias due to retrospective nature of the study which adds credibility to their work.

However, there are some points that could be improved upon such as providing more detail about how they selected participants for inclusion in the study or discussing other potential confounding factors that may have influenced their results such as age or gender differences between groups. Additionally, while they discuss potential limitations due to retrospective nature of the study they do not provide any discussion about possible sources of bias such as recall bias or interviewer bias which could affect accuracy of data collected from patient records or interviews respectively. Finally, while they discuss potential implications for treatment based on their findings it would be beneficial if they provided further discussion about possible risks associated with HSCT or other treatments for AML patients with PTPN11 mutations so readers can make informed decisions about treatment options available to them.

# Topics for further research:

* PTPN11 mutation prevalence in AML
* Clinical characteristics of PTPN11 mutation-positive AML
* Prognostic impact of PTPN11 mutations in AML
* Allo-HSCT for AML with PTPN11 mutations
* Selection bias in retrospective studies
* Sources of bias in patient interviews

# Report location:

<https://www.fullpicture.app/item/b71cacf78c68799d3c5322d80852010c>