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Clinical and Laboratory Characteristics of Patients with Primary Myelofibrosis in Azerbaijan according to JAK2V617F Mutational Status

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INTRODUCTION

In patients with primary myelofibrosis, the Jak2V617F mutation is the most frequent driver mutation. [1] There are a few studies analyzing PMF patients according to mutational status. [2,3] Until now in our country, similar studies have never been performed.

AIM

The clinical and laboratory data of patients with primary myelofibrosis in Azerbaijan who underwent Jak2V617 mutation analysis are presented in this article.

METHOD

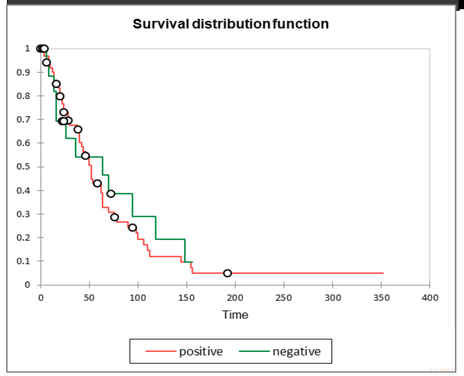
The clinical and laboratory data of 71 patients with primary myelofibrosis were retrospectively analysed according to the genetic profile of the mutation.

A descriptive analysis and non-parametric test was carried out (Mann-Whitney test)

RESULTS

- *Jak2V617F was positive in 51 (72%) patients. 20 (28%) patients were negative.*
- *There were 37 (52.1%) male patients.*
- *The median age was 58.0 years [47.5; 64.0] in the Jak2V617F positive group and 54.5 years [50.0; 62.5] in the negative group.*
- *The distribution of Jak2 positive and negative patients according to DIPSS risk groups was as follows:*
  - *Low- 10 (67%) and 5 (33%) (n=15)*
  - *INT-1- 32 (78%) and 9 (22%) (n=41)*
  - *INT-2/High -8 (16%) and 6 (30%) (n=14)*
- *Median overall survival was 50 vs 75 month respectively.*
- *In the Jak2V617F positive and negative groups, the median values were shown in the* ***Table 1.***

Figure 1. Survival analisys of the patients



Jak2V617F positive- Median OS- 50 month
Jak2V617Fnegative- Median OS- 75 month

Table 1 .Characterstics of patients according Jak2V617F mutational status

Variable	Jak2V617F positive	Jak2V617F negative
N(%)	51(72)	20(28)
Median WBC count ×10⁹/L,(range)	13.8 (7.00-21.3; n=51)	11.3 (4.25-16.2; n=20)
Median hemoglobin, g/dl ,(range)	10.96 (3.0 - 16.7)	10.89 (2.1 - 19.4)
Median platelet count ×10⁹/L ,(range)	324.6 (32 - 1381)	485.4 (24 - 1910)
Median eosinophil count ×10⁹/L,(range), n=61	0.300 (0.08-0.690;n=45)	0.175 (0.055-0.323;n=16)
Median LDH, U/L (range), n=39	440 (291-710; n=25)	539 (490-708; n=14)
Median bone marrow blasts,% (range),n=35	0 (0-0.650; n=24)	1.20 (0.400-1.80; n=11)
Median spleen size, cm (range), n=60	19.1 (16.8-22.0; n=43)	19.4 (17.2-21.9; n=17)
Median liver size, cm (range), n= 56	15.6 (14.0-16.8; n=40)	16.6 (14.3-17.1; n=16)
MPN TSS , n= 42	20.0 (13.0-36.5; n=30)	17.5 (6.50-22.2; n=12)

CONCLUSIONS

- Comparison of clinical and laboratory data between Jak2 positive and negative groups in patients with primary myelofibrosis in Azerbaijan was performed.
- Except for median Hgb and bone marrow blasts percentage, no statistically significant results (p<0.05) were found.
- Most of the results, although not statistically significant, were similar or close to those of previous studies.
- The small number of patients in the compared groups is a limitation of our study.
- It may be useful to conduct a larger trial with more patients.

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