Abstract: PB2210

Title: COMPARISON OF THREE PROGNOSTIC SCORING SYSTEMS FOR THE RISK OF THROMBOSIS IN ESSENTIAL THROMBOCYTHEMIA: ANALYSIS OF 190 PATIENTS AT THE UNIVERSITY HOSPITAL OF THE CANARY ISLANDS (1990-2022)

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Background:

Essential thrombocythemia (ET) is a Philadelphia-negative chronic myeloproliferative neoplasm, whose main complication is the development of thrombosis. Three prognostic thrombotic-risk scoring systems are currently in use: "classical", IPSET-T, and revised IPSET-T.

Aims:

Our aims were:

1) To determine if any of the two most recent thrombotic-risk scores (IPSET-T and revised IPSET-T) more accurately stratify thrombosis-free survival (TFS) and overall survival (OS) compared to the "classical" system;

2) Evaluate the incidence of thrombosis with each one of them; and

3) Analyze, independently, the weight that each one of the factors included in the different prognostic systems has in the appearance of a thrombotic event.

Methods:

We retrospectively analyzed 190 patients (113 women and 77 men; mean age 60.5 years; 55.9% JAK2 mutated) diagnosed and followed up in our hospital between 1990 and 2022. We completed a data collection sheet in EXCEL format, which includes epidemiological, clinical, analytical and molecular data, in order to characterize the disease at diagnosis, the treatment received and the evolution. We specifically collected JAK2 mutation status, presence of leukocytosis at diagnosis, presence of any of the cardiovascular risk factors (CVRF) at diagnosis or during evolution, appearance of thrombotic events and data to assess overall survival and thrombosis-free survival (date of diagnosis, date of death, date of last consultation, date of first thrombotic event), and also, variables related to the thrombotic events: date of the event, type (arterial or venous), territory, platelet count, leukocyte count, and antiplatelet, anticoagulant, or lipid-lowering treatment, when the event occurred.

Results:

Applying the "classic" score, the PFS and OS of low-risk patients are significantly higher than those of high-risk. When we apply the IPSET-T and the revised IPSET-T, the patients are still basically classified into two groups, and we did not find a real stratification with more prognostic groups. In its evolution, 15.3% of patients (29 patients) presented a thrombotic episode compared to 84.7% who did not. We did not find differences in the incidence of thrombosis in the evolution of the disease, depending on the risk group, for any of the three thrombotic-risk scores. However, we found a significantly higher percentage of patients not receiving antiplatelet therapy among low-risk patients who developed thrombosis (92.9%) than in high-risk patients (46.9%) (p=0.011), which could explain these findings.

Summary/Conclusion:

1) In our series, the new scores related to thrombotic risk (IPSET-T and revised IPSET-T) do not improve the estimation of PFS or OS, compared to the "classical" system.

2) In our study, we found no differences in the incidence of thrombosis in the course of the disease, depending on

the risk group, for any of the three prognostic scores. The latter could be due to the fact that most low-risk patients do not receive antiplatelet therapy.

3) The factors that have the greatest weight in thrombosis-free survival are age and a history of thrombosis prior to the diagnosis of essential thrombocythemia. No relationship was found with CVRF or with the JAK2 mutation status.

Keywords: Thrombosis, Essential Thrombocytemia, International prognostic index, Philadelphia chromosome