E10. THE CLASSIC BCR/ABL–NEGATIVE MYELOPROLIFERATIVE NEOPLASMS (MPN, MPD): ESSENTIAL THROMBOCYTHEMIA. ACTUALITIES IN DIAGNOSIS, PATHOGENESIS AND TREATMENT.

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The myeloproliferative disorders or neoplasms (MPN) are heterogeneous diseases that occur at the level of a multipotent hematopoietic stem cell. They are characterized by increased blood cell production and virtually normal cell maturation. Essential thrombocythemia (ET) is currently classified, with the polycythemia vera (PV), and primary myelofibrosis (PM) as a classic myeloproliferative neoplasms (MPN) BCR/ABL negative. ET is characterized by persistent thrombocytosis, excessive proliferation of megakaryocites in the bone marrow, normal erythrocitic mass and the absence of prominent bone marrow fibrosis.

The molecular pathogenesis of the MPN has been poorly understood until 2005, when an unique acquired clonal mutation in *JAK2* was reported by five different research teams in around 50% of patients with ET, PM and the vast majority of PV.A unique valine to phenylalanine substitution at position 617 (V617F) in the pseudokinase autoinhibitory *JAK2* domain causes the constitutive activation of the *JAK2*-STAT signaling pathway and leads to autonomous cell growth in a cytokine - independent manner. *JAK2V617F* has been adopted in the new WHO diagnostic criteria for ET, PV and PM.

Up to one-half of patients with ET may be totally asymptomatic at presentation. The remaining patients may report "vasomotor" symptoms or manifest thrombotic and hemorrhagic complications, which are the main causes of morbidity and mortality in ET. Most patients with ET enjoy a normal life expectancy, without associated disease-related complications. The delayed development of either acute myeloid leukemia or post- ET myelofibrosis is unusual, 2 and 4 percent respectively.

The optimal therapeutic strategy intended to prevent vascular events is depended on the presence or absence of thrombotic risk factor, requiring prognostic stratification in risk groups depending on age, thrombotic history.