RISK FACTORS FOR ARTERIAL AND VENOUS THROMBOSIS IN WHO-DEFINED ESSENTIAL THROMBOCYTHEMIA: AN INTERNATIONAL STUDY OF 891 PATIENTS

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SUMMARY:

Essential Thrombocythemia is one of the chronic myeloproliferative disease, and is characterized by an increased number of platelets in the blood, which can sometimes also be associated with an increase in white blood cell number. About 60% of cases carry the JAK2V617F mutation. Thrombosis such as stroke, myocardial infarction and peripheral arterial and venous thrombosis, and bleeding are possible events for patients with this disease. In this study, the authors analyzed a large number of cases (n = 891) to identify risk factors that might facilitate these events. Risk factors for thrombosis were found to be age > 60 years, prior thrombosis, white blood cells > 11000/uL, the presence of JAK2V617F mutation and classical cardiovascular risk factors such as smoking, hypertension, diabetes. In patients carrying the JAK2V617F mutation, the increased number of white blood cells seem to lose importance for the thrombotic risk, while the significance is maintained for all other factors. Apparently paradoxically, a very high platelet count, more than 1500000/uL, reduces the risk of thrombosis probably due to a subsequent alteration of the mechanism of blood clotting. However, this study showed no increased risk of bleeding due to high platelet count.

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