conferenceseries.com http://dx 5th World Hematologists Congress

August 18-19, 2016 London, UK



J J Michiels

Goodheart Institute, Netherlands

2016 WHO clinical molecular and pathological criteria for classification and staging of myeloproliferative neoplasms (MPN) caused by MPN driver mutations in the JAK2, MPL and CALR genes in the context of new 2016 WHO classification: Prognostic and therapeutic implications

The 2016 WHO-CMP classification proposal defines a broad spectrum of JAK2 V617F mutated MPN phenotypes: Normocellular ET, hypercellular ET due to increased erythropoiesis (prodromal PV), hypercellular ET with megakaryocytic-granulocytic myeloproliferation and splenomegaly (EMGM or masked PV), erythrocythemic PV, early and overt classical PV, advanced PV with MF and post-PV MF. ET heterozygous for the JAK2 V617F mutation is associated with low JAK2 mutation load and normal life expectance. PV patients are hetero-homozygous versus homozygous for the JAK2 V617F mutation in their early versus advanced stages with increasing JAK2 mutation load from less than 50% to 100% and increase of MPN disease burden during lifelong follow-up in terms of symptomatic splenomegaly, constitutional symptoms, bone marrow hypercellularity and secondary MF. Pre-treatment bone marrow biopsy in prefibrotic MPNs is of diagnostic and prognostic importance. JAK2 exon 12 mutated MPN is a distinct benign early stage PV. CALR mutated hypercellular thrombocythemia show distinct PMGM bone marrow characteristics of clustered larged immature dysmorphic megakaryocytes with bulky (bulbous) hyperchromatic nuclei, which are not seen in JAK2 mutated ET and PV. MPL mutated normocellular thrombocythemia is featured by clustered giant megakaryocytes with hyperlobulated stag-horn-like nuclei without features of PV in blood and bone marrow. Myeloproliferative disease burden in each of the JAK2, CALR and MPL MPNs is best reflected by the degree of anemia, splenomegaly, mutation allele burden, bone marrow cellularity and myelofibrosis.

Biography

J J Michiels is the founder of the Goodheart Institute & Foundation. He served as Assistant Professor to Professor of Nature Medicine at A. Kr. von dem Borne Department of Hematology, as a Consultant Scientist at Academic Medical Center Amsterdam during 1997-2000, as Consultant professor Hematology at Medical Diagnostic Center, Rijnmond Rotterdam 1998-2000. He is the Co-founder of Central European Vascular Forum: CEVF 2003 at University Hospital Antwerp, Belgium, Co-founder of European Society of Vascular Medicine: ESVM. He is also a founder of European Working Group on Myeloproliferative Disorders: EWG. MPD during 1999-2008 and European Working Group on Myeloproliferative Neoplasms: EWG.MPN. His research interests reflect in his wide range of publications in various national and international journals. He serves as a member of various associations apart from being Editorial board member of many reputed journals.

goodheartcenter@upcmail.nl

Notes: