

# Hematology and Oncology

August 23-24, 2018 | London, UK

## A Report of Cytogenetic abnormalities Found In 246 Mexican patients clinically diagnosed with Myelodysplastic Syndrome (MDS), given the importance of Cytogenetic results in calculating the Risk Assessment proposed by the IPSS-R

**Marcelo F Rosales**

Mendel Laboratory, Mexico

**M**yelodysplastic syndromes (MDS) is a group of clonal disorders characterized by progressive cytopenia's and dishematopoiesis. Anemia is frequently observed along with a defect of protoporphyrin synthesis like ring sideroblastic which are seen in patients with deletion 5q. The dysplastic changes like macrocytosis is the most commonly observed. In neutrophils and eosinophils is also commonly found hyp granulation. The etiology of primary MDS is unknown, its general biological characteristics include impaired hematopoiesis, which may be accompanied by molecular, immunological and/or cytogenetic abnormalities. These group of chromosomal abnormalities considered as a prognostic factor within the MDS (very good, good, intermediate, poor and very poor), being the most recent the Revised International Prognostic Scoring System (IPSS-R). This article gives a description of several cytogenetic abnormalities found as evidence within 246 Mexican-mestizo patients with a diagnosis of MDS. In each of the 246 cases, two unstimulated cell cultures of bone marrow or peripheral blood were set up, and the GTG banding technique was performed. An analysis of twenty (20) metaphases were done on average in each case, and chromosomes with a resolution of 300 to 500 bands. The nomenclature report was written using an up to date

International System of Human Cytogenetics Nomenclature (ISCN). Most of the findings of cytogenetic abnormalities in this population with MDS are directly related to patient age, given the 76.5% of the reports generated with abnormal karyotypes belong to patients older than 50 years old. The chromosomal abnormalities found in our study coincides with that reported in the literature, which is del (5q), this abnormality was observed in 28% (18 cases). Also, the abnormalities of chromosome 7 and 8 were observed by the same percentage as the literature reports, being 12.5 % (8 cases). From the abnormalities found, 17% of them involved chromosome 11, including t(9;11). Other abnormalities observed include additions, inversions, translocations involving different chromosomes. Finally, there is a correlation between the abnormalities found in our study and the stratification of risk classification proposed by the IPSS-R.

### Speaker Biography

Marcelo F Rosales completed his degree of specialist in diagnostic hematology by laboratory in 2012 at the Institute of Hematopathology in Mexico City. He is director of the Rosales laboratory founded in 1958 in Rio Bravo Tamaulipas Mexico He is currently a main professor of Hematology courses in the northern area of Tamaulipas and is a collaborator of the Leading Cytogenetic Laboratory in Mexico, Mendel Laboratory

e: mrosaleslab@gmail.com



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