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The impact of Anaemia, Transfusion dependency, Comorbidities and Polypharmacy in elderly patients with low risk Myelodysplastic Syndromes

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Abstract: Myelodysplastic syndromes (MDS) are heterogeneous organism disorders starting from indolent conditions with near-normal expectancy to forms approaching acute myeloid cancer. Comorbid conditions have seldom been consistently studied among patients with MDS. Older age as such includes a negative impact on survival of MDS patients, specifically of these with lower risk. However, age indirectly affects additionally the survival of higher-risk patients by limiting their eligibility to intensive treatments. Additionally, ageing is connected with a progressively high risk of developing comorbidity, and a high prevalence of comorbid diseases has so been reported in MDS patients. The impact of comorbidities and polypharmacy in patients with low-risk MDS patients is a poorly explored topic. We tend to focus on medications, multi-morbidities and comorbidities (occurrence of more than one disease in one person at same time) of 155 low-risk MDS patients followed within the hematologic outpatient's clinics or in medical/oncology wards of our University Hospital. One or a lot of comorbidities were present at diagnosis in twenty four younger patients with MDS syndromes (31%), whereas fifty six older patients with MDS (75%) given one or a lot of comorbidities (P<0.001). the foremost frequent comorbidity was internal organ comorbidity eighteen in younger patients and twenty fifth in older patients. With no statistical significance between older and younger patients, congestive heart failure was the most frequent ascertained disease. Our study has shown a statistical correlation between transfusion dependency and polypathology (P=0.0014). These information were additionally confirmed in an exceedingly sub analysis of the younger cluster of patients. Our study has shown that comorbidity is very common among patients with MDS, potentially affecting the clinical course and outcome of MDS patients.

Introduction: Anaemia is a condition in which the blood contains a decreased amount of RBC's or Haemoglobin that lowers the ability of the blood to carry oxygen. Symptoms include fatigue, dizziness, shortness of breath, fast heartbeat.

The cause of Anaemia can be by blood loss, decreased red blood cell production, and increased red blood cell breakdown. Causes of oozing of blood include trauma and gastrointestinal bleeding. Causes of reduced red blood cell production include iron deficiency, vitamin B12 deficiency, thalassemia, and a number of neoplasms of the bone marrow. Causes of increased RBC breakdown include genetic conditions such as sickle cell anemia, infections such as malaria, and certain autoimmune diseases. Classification of anemia is also based on the size of the red blood cells and amount of hemoglobin in each cell. If the size of the cells is small, it is called microcytic anemia; if they are large, it is called macrocytic anemia; and if they are normal sized, it is called normocytic anemia. The diagnosis of Anemia in men is based on hemoglobin of less than 130 to 140 g/L (13 to 14 g/dL); in women, it is less than 120 to 130 g/L (12 to 13 g/dL). To determine the cause, Further testing is then required.

Polypharmacy is defined merely as the use of multiple medications. There is no standardized threshold to define what constitutes "multiple medications"; however, a threshold of a minimum of five medications commonly is accepted. Using this definition, surveys estimate that polypharmacy occurs in roughly 20% to 30% of older adults, with half of older adults using non-prescription medications concurrently. On average, community-dwelling older adults take four prescription medications daily. Averages are higher in populations with more comorbidities and greater frailty. The average number of medications for residents in assisted living facilities is six, and this number increases to eight medications daily for nursing home residents.

Polypharmacy (use of multiple medications during a single individual) has been positively connected with increasing age, multiple diseases, and disability. The use of multiple medications has been shown to increase nursing home placement, difficulty with ambulation, admissions to the hospital, and mortality. Several components contribute to the incidence of polypharmacy. Sometimes, the employment of the many medications is that the right thing for patients to regulate their diseases and ensure a far better quality of life. However, there are risks associated with polypharmacy. When an individual consumes more drugs, then drug interactions happen with increased frequency. These interactions may include the increase or decrease in effectiveness of one drug. Changes in effectiveness are caused by another or a more pronounced manifestation of an adverse event because of the elder taking two drugs that have an identical side effect profile. In addition, sometimes new medications are introduced for the precise reason of offsetting a hard effect caused by another. Providing new medications is also appropriate, but this scenario often occurs because the matter isn't recognized as drug-induced. Risk factors that contribute to polypharmacy include the utilization of multiple physicians with different specialties who may prescribe similar medications, the utilization of multiple pharmacies, and thus the proven fact that elders often have multiple conditions requiring medication therapy. In addition, inappropriate medication reconciliation upon discharge from the hospital is additionally a risk factor. The prevalence of polypharmacy post-hospital discharge has been shown to be higher than at the time of admission.

Biography: Roberto Castelli has obtained his degree in Medicine at University of Milan, and then specialization in Internal Medicine and Hematology at University of Milan. In addition, he obtained his PhD in Clinical Methodology at University of Milan. He worked as Haematologist at Ospedale Maggiore di Milano University of Milan until 2015 at University Hospital Ospedale Luigi Sacco. He is involved in malignant and non-malignant hematological disease focusing on Myelodysplastic syndromes, acute and chronic leukemia's and myeloproliferative neoplasms. He is responsible of leukemia section at Ospedale Luigi Sacco University of Milan.