Putting Anemia Under the Spotlight

Lower-Risk Myelodysplastic Syndromes:  
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Epidemiology of MDS

MDS occurs predominantly in the aging population

~4.0 per 100,000

Overall age-adjusted incidence rate

77 years

Median age at diagnosis

Unmet needs in MDS

Up to 90% of patients may have anemia, leading to a significantly increased risk of mortality

Transfusion burden is associated with a short OS

Transfusion independence is associated with better QoL

Symptoms of MDS

Typical presenting symptoms of MDS are generally non-specific and usually differ, depending on the type of cytopenia

Most common symptoms of MDS

Anemia

Neutropenia

Thrombocytopenia

Other symptoms of MDS

Fatigue/weakness

Dyspnea

Decrease in tolerance to physical activity

Other symptoms

Palpitations

Sweating

Decrease in appetite

Painful joints

Loss of appetite

Frequent infections

Easy bruising

Poor wound healing

Thromboembolism

Pneumonia

MDS Diagnosis Algorithm

Diagnosis requires a combination of clinical suspicion, laboratory tests, hematologic morphology, and genetic evaluation

Minimal prerequisites to establish MDS diagnosis:

Exclusion of other potential disorders as primary reason for dysplasia/cytopenia

The diagnosis of MDS also requires one of the following:

1. ≥10% morphologic dyspoenia (with or without an increase in blast cells) in ≥1 of the 3 lineages of hematopoietic cells

2. A blast cell count of 5-19%

3. A specific MDS-associated karyotype, such as del(5q), del(20q), +8, or −7/del(7q)

Burden on Quality of Life and Physical Problems

41% of patients with MDS reported moderate or severe mobility issues

MDS causes a substantial

4.0

34%

37.9%

4.0

34%

Unmet needs in MDS

40% of patients have LR-MDS

A treatment strategy may differ when treating patients based on their individual lifestyle and additional comorbidities

Classification

Bone marrow blasts WHDS ICC

No dysplasia

CCUS

Clinical suspicion of cytopenia

<5%

MDS, hypoplastic

MDS with LB

MDS with LB and isolated 5q del

MDS with LB and SF387 mutation

MDS with mutated SF387

5-9%

MDS with IB1

MDS with fibrosis

MDS with EB

MDS with mutated TP53

MDS with mutated TP53

10-19%

MDS with IB2

MDS with biallelic TP3 mutation

MDS/AML

MDS/AML

Risk stratification

The Revised International Prognostic Scoring System (IPSS-R) is the most commonly used risk stratification system in MDS, taking into account the degree of cytopenia, proportion of blasts in the bone marrow, and presence of cytogenetic abnormalities

Revised International Prognostic Scoring System (IPSS-R)[4]

19%

Very Low

38%

Intermediate

20%

High

13%

10%

Very High

17%

High

Treatment goals for anemia in LR-MDS5

Achieve RBC-transfusion independence

Improve hematological status

Improve QoL

Improve OS and delay AML transformation

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References:


