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CME article

Myelodysplastic neoplasms (MDS)

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The myelodysplastic neoplasms (MDS) are a group of clonal haematopoietic stem cell diseases characterized by cytopenia, dysplasia in one or more of the major myeloid lineages, ineffective haematopoiesis, recurrent genetic abnormalities and increased risk of developing acute myeloid leukaemia (AML).

Q1. Regarding diagnosis of MDS

a) Myeloid lineages affected by cytopenia should display dysplastic changes for the diagnosis.

b) Presence of micromegakaryocytes is a reliable finding for the diagnosis.

c) MDS with inversion of chromosome 3 [Inv (3)] can be associated with thrombocytosis.

d) Hypoplastic MDS can be differentiated from aplastic anaemia by the presence of trisomy 8.

e) The presence of megaloblastoid changes alone is sufficient to diagnose dyserythropoiesis.

Q2. Regarding classification of MDS in WHO 5th edition (2022)

a) Idiopathic cytopenia of undetermined significance (ICUS) is diagnosed with the demonstration of clonality.

b) MDS with low blasts and SF3B1 mutation is a new diagnostic entity.

c) The entity of MDS unclassifiable is removed.

d) Detection of 5 q deletion and biallelic TP53 mutation leads to the diagnosis of MDS with isolated 5q deletion.

e) Distinction between single lineage and multilineage dysplasia is considered optional.

Q3. Regarding management of MDS

a) Thrombopoietin receptor agonist (TPO-RA) may be used to reduce bleeding in a patient with low risk MDS.

b) Luspatercept acts as an erythroid maturation agent by binding to transforming growth factor-beta superfamily ligands.

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c) Deferasirox is the drug of choice in patients who require iron chelation.

d) Haemopoietic stem cell transplant is recommended for patients with TP53 mutation in association with a complex monosomal karyotype.

e) Imetelstat is approved to use in transfusion dependant low risk patients who have lost response to erythroid stimulating agents.

Answer grid

Q-1	**T T T T T**	**Q-2**	**T T T T T**	**Q-3**	**T T T T T**
	F F F F F		**F F F F F**		**F F F F F**

CME points: 03

The answers are given in page 38-42 with the explanations.