

MYELOYDYSPLASTIC SYNDROME

Myelodysplastic syndromes (MDS) are a group of disorders caused by dysfunctional bone marrow production which subsequently leads to poorly developed or dysfunctional blood cells.

MDS affects individuals of any ethnicity or gender. Age being a significant risk factor, MDS is most commonly

diagnosed in persons above the age of 65. Additional risk factors can include being of South Asian descent.

Physical signs of MDS include: fatigue, pale skin, easy or unusual bruising or bleeding, pinpoint sized red spots beneath the skin, and frequent infections. The symptoms range from

anemia to a shortage of platelets, and are often mistaken for signs of general aging or less serious conditions.

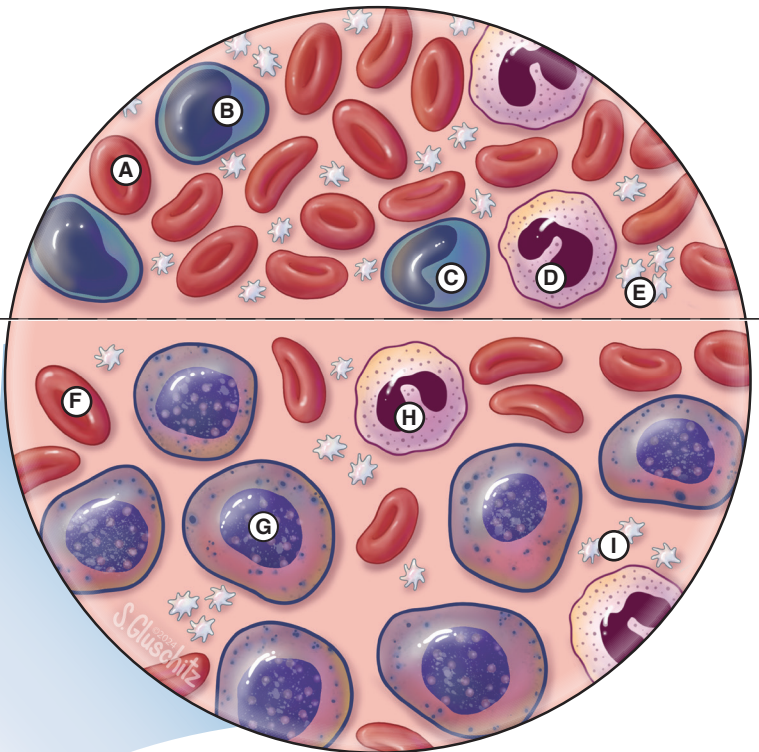
Diagnostics require blood tests and a bone marrow biopsy. Treatment includes medication or more extremely a blood transfusion.

Healthy blood

- (A) Abundant red blood cells
- (B) Lymphocytes
- (C) Monocytes
- (D) Neutrophils
- (E) Abundant platelet count

Cancerous blood

- (F) Reduced red blood cell count
- (G) Ring sideroblasts
- (H) Neutrophils
- (I) Reduced platelet count



Blood transfusion



Refractory anemia with ringed sideroblasts

One example of a representative morphologic abnormality in myelodysplastic syndrome

Fatigue

Pale skin

Easy or unusual bruising and bleeding

Pinpoint sized red spots beneath the skin