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CAUSES OF DEATH IN PATIENTS WITH MYELODYSPLASTIC SYNDROME AND SPLICEOSOME MUTATIONS

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INTRODUCTION

Patients with myelodysplastic syndrome (MDS) and spliceosome mutations (SM) are found across the International Prognostic Scoring System-Molecular (IPSS-M) risk categories.

Causes of death in MDS historically include infection, AML transformation, or hemorrhage.

AIM

Determine the causes of death (COD) in patients with MDS and spliceosome mutations as stratified by IPSS-M.

METHODS

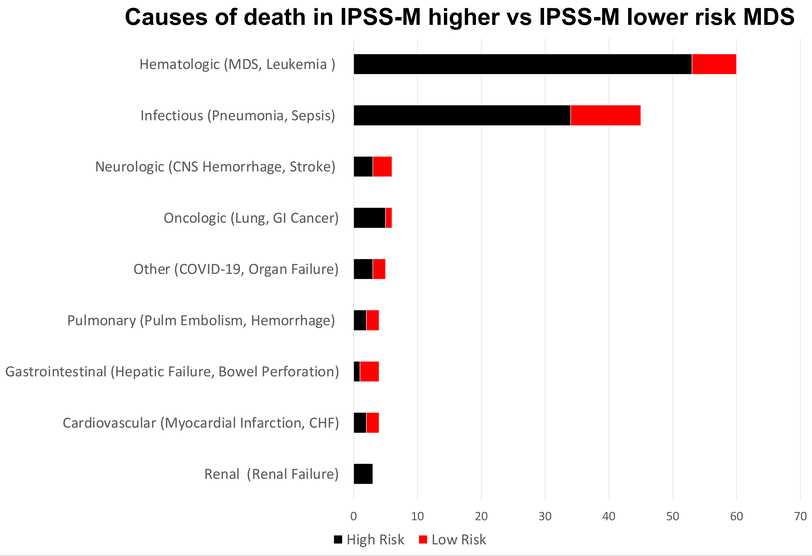
- We retrospectively analyzed the COD in a cohort of 137 deceased patients with Very-Low (VL), Low (L), Moderate-Low (ML), Moderate-High (MH), High (H), and Very-High (VH) risk MDS according to IPSS-M at a single institution from 2017-2022.
- MDS-related death was defined as infection, bleeding, transformation to leukemia, or worsening cytopenia.
- Remaining COD such as cardiac, neurologic, and non-hematologic oncologic pathologies were classified as non–MDS-related COD.
- A Pearson's chi-squared test was used to compare subgroups.

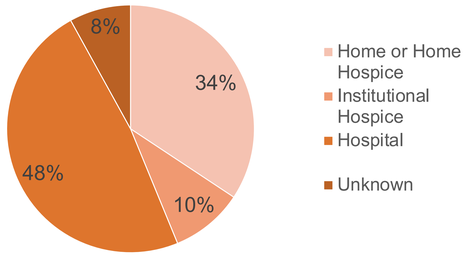
RESULTS

Table 1. Characteristics of deceased patients

	Overall	SRSF2	SF3B1	U2AF1	ZRSR2	*p*
N (%)	137	35 (25.5)	42 (30.6)	36 (26.2)	24 (17.5)	
Age, median(range)	72.0 [67.0,76.0]	72.0 [68.5,74.0]	74.0 [69.0,80.0]	71.5 [63.5,75.0]	71.0 [65.8,77.0]	0.087
Sex						
Female	32 (23.4)	13 (37.1)	11 (26.2)	4 (11.1)	4 (16.7)	0.057
Male	105 (76.6)	22 (62.9)	31 (73.8)	32 (88.9)	20 (83.3)	
IPSS-M						
Very Low	10 (2%)	1 (0.9%)	5 (3.5%)	0 (0.0%)	4 (6.7%)	0.032
Low	12 (8.8)	7 (20.0)	1 (2.4)		4 (16.7)	
Moderate Low	18 (13.1)	6 (17.1)	3 (7.1)	7 (19.4)	2 (8.3)	
Moderate High	22 (16.1)	8 (22.9)	8 (19.0)	4 (11.1)	2 (8.3)	
High	38 (27.7)	7 (20.0)	12 (28.6)	12 (33.3)	7 (29.2)	
Very High	46 (33.6)	7 (20.0)	18 (42.9)	13 (36.1)	8 (33.3)	
	3 (0-19)	3.5 (0-18)	2 (0-16)	3.6 (0-17)	3 (0-19)	0.011
Cytogenetics						
Abnormal	92 (67.2)	25 (71.4)	27 (64.3)	26 (72.2)	14 (58.3)	0.634
Diploid	45 (32.8)	10 (28.6)	15 (35.7)	10 (27.8)	10 (41.7)	

IPSS-R: International Prognostic Scoring System-Molecular. p according to Fisher's exact test.





CONCLUSIONS

Most patients, regardless of risk status, will die because of MDS-related complications. Despite lower rates of AML transformation in lower-risk MDS, mOS remains short for both groups.

Supportive care strategies reduce the risk of infection, and bleeding are necessary to prevent these outcomes.

Death often occurred as acute complications of the disease leading to inpatient admission and demise.

ACKNOWLEDGEMENTS

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