

OUTCOMES OF ACUTE MYELOID LEUKEMIA PATIENTS PRESENTING IN A TERTIARY CARE HOSPITAL: A DEVELOPING COUNTRY EXPERIENCE.



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INTRODUCTION

Acute myeloid leukemia (AML) management has significant therapeutic challenges, particularly in low- and middle-income countries (LMICs) where diagnostic limitations, treatment delays, and financial constraints impact outcomes

AIM

This study aims to evaluate treatment outcomes of adult patients diagnosed with AML presenting to a tertiary care hospital in Pakistan.

METHODLOGY

observational study : January,2018-December,24.
INCLUSION: newly diagnosed AML patients, age ≥18 years (diagnosis and risk stratification followed WHO 2022, FAB, and ELN 2022 criteria)
EXCLUSION: Patients with prior AML therapy, acute promyelocytic leukemia, or those lost to follow-up immediately after diagnosis.
PRIMARY END POINTS: OS and DFS, outcomes were analyzed using the Kaplan–Meier method.

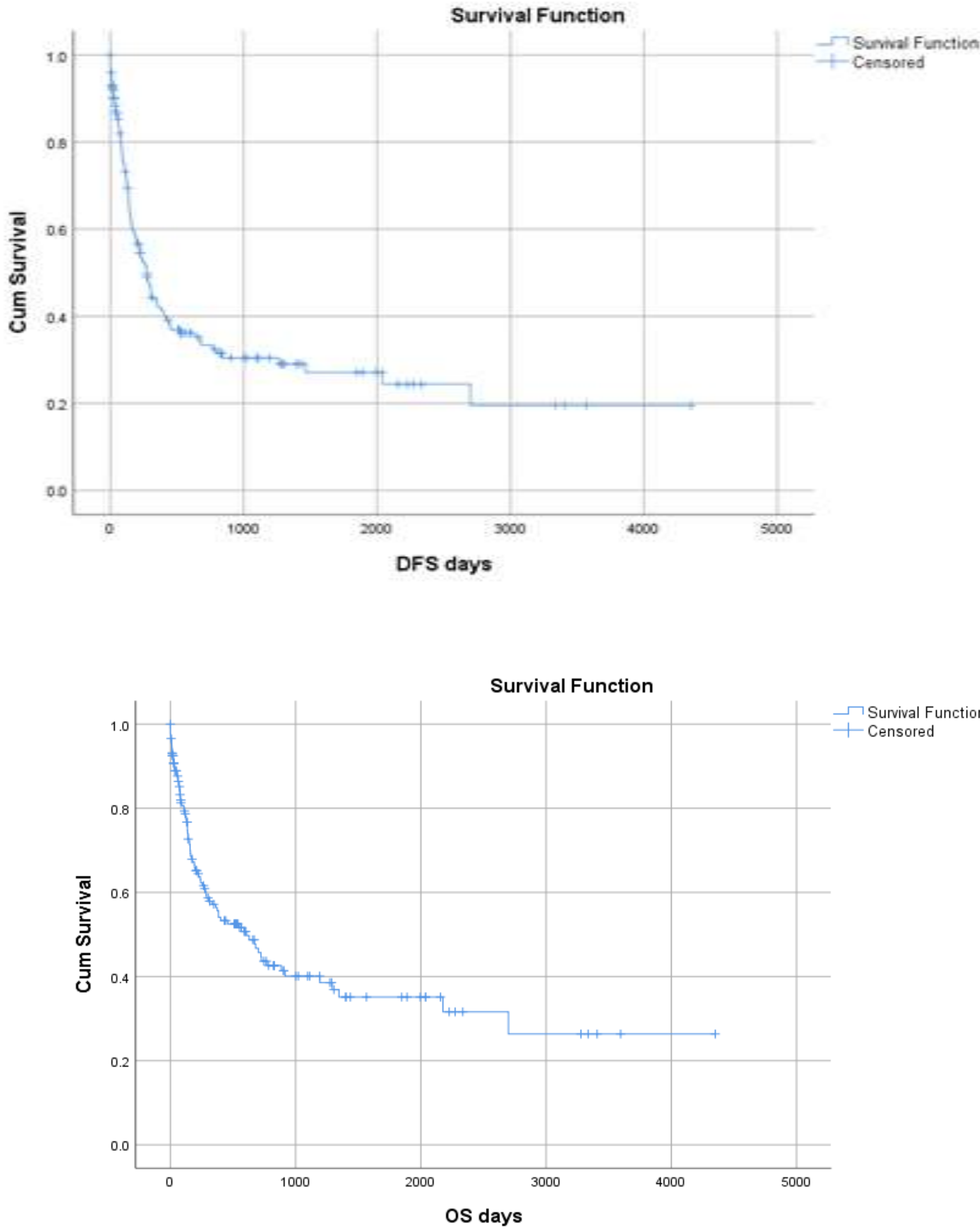
CONCLUSIONS

Despite recent advancements in AML therapy, significant challenges remain, particularly in resource limited settings. Diagnostic access and early treatment are essential to improve outcomes.

RESULTS

Table I: Demographic characteristics of AML patients (n=180)			
Factor	Level	n	%
Gender	Male	115	63.9
	Female	65	36.1
Age groups	18-30 years	63	35
	31-50 years	80	44.4
	More than 50 years	37	20.6
Comorbid	No	134	74.4
	Yes*	46	25.6
Presenting complaints	Fever, weakness	111	61.7
	Bleeding, bruising	14	7.8
	Fever, bleeding, bruising, exertional dyspnea	53	29.4
	Non healing ulcers and wound	2	1.1
Signs	Pallor	Yes = 97	53.9
		No = 83	46.1
	Liver	Not palpable = 142	78.9
		palpable = 38	21.1
	Spleen	Not palpable = 154	85.6
		palpable = 26	14.4
	Lymph node	Not palpable = 156	86.7
		palpable = 24	13.3
CNS disease	No	179	99.4
	Yes	01	0.6
Presenting counts	WBC (x 10 ⁹ /ul)	7.75 (IQR: 3.10–32.0)	
	Hemoglobin (g/dL)	8.96 ± 2.3 (Min-Max: 2.8 – 15)	
	Platelets (x 10 ⁹ /ul)	57.0 (IQR: 29.2-122)	
	Bone marrow blasts (%)	70 (IQR:52-80)	
AML FAB classification	minimal differentiation	12	6.7
	without maturation	17	9.4
	with maturation	87	48.3
	myelomonocytic	22	12.2
	monocytic	15	8.3
	erythroid leukemia	2	1.1
	myelodysplastic related changes	16	8.9
	relapse, refractory, Fanconi anemia, post cytotoxic therapy, myeloid sarcoma, MDS	9	5.0
ELN 2022 classification	Favorable risk	14	7.8
	Intermediate risk	138	76.7
	Adverse risk	28	15.6
	Normal	120	66.6
Cytogenetics	Abnormal**	55	30.6
	Culture failed	5	2.8
Note: *comorbid commonly seen were diabetes, hypertension and latent T.B			
**commonly seen abnormal cytogenetics were Del 9p,7q, monosomy 7, trisomy 8, t (9;22), t (15;17), and t (8;21)			

Table II: Treatment Pathways and Outcomes of Patients				
Category		n	%	Details / Outcomes
Curative treatment (n=149)				
Non transplant patients (n = 55)				
Complete remission (MRD-negative)		28	50.9	Consolidated per risk category
Less than complete remission		12	21.80	Required re-induction
Re-induction therapies (n = 12)				Outcomes included death or HSCT
	• D3A7	1	8.30	Followed by HiDAC consolidation; did not survive
	• Decita-Venetoclax	3	25	No donor available; 1 received iDAC consolidation, 2 died
	• FLAG-Dauno	8	66.70	4 (50%) died; 4 (50%) proceeded to allo-HSCT
	• iDAC	18	64.30	Given to intermediate/low-risk patients
Consolidation regimens (n = 28)				
	• HiDAC	10	35.70	Given to high-risk patients
	Transplanted patients (n = 94)			
	• CR1	70	74.50	D3A7, iDAC/HiDAC (bridge to transplant)
	• CR2	21	22.30	Salvage chemotherapy (FLAG-Dauno/FLA)
	• CR3	3	3.20	
Status at transplant				
Palliative treatment (n=31)				
Achieved remission *		18	58.1	Responded to HMA–Venetoclax
Did not achieve hematological remission*		13	41.9	Non responders
Note: *All patients were consolidated with four cycles of HMA–Venetoclax				



Kaplan–Meier curves showing OS (49.1%) and DFS (37.7%) in studied population (n=175).

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