soho2023
ELEVENTH ANNUAL MEETING

A COMPARISON OF TREATMENT OUTCOMES IN ADOLESCENTS AND YOUNG ADULTS (AYA) WITH PHILADELPHIA NEGATIVE ACUTE LYMPHOBLASTIC LEUKEMIA TREATED WITH HYPERCVAD AND PEDIATRIC INSPIRED PROTOCOLS

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INTRODUCTION

- Pediatric-inspired protocols (PIP) are increasingly used in the treatment of adolescents and young adults (AYA) with acute lymphoblastic leukemia (ALL).
- Multiple retrospective analyses from US and EU cooperative groups showed that AYA patients with ALL has far superior outcomes when treated with PIPs (1), other studies reported similar outcomes(2,3)

AIM

To compare the outcome of AYA patients with Philadelphia-negative ALL treated with PIPs and HyperCVAD/MA.

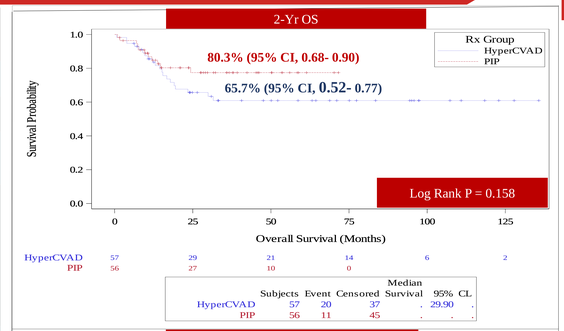
METHOD

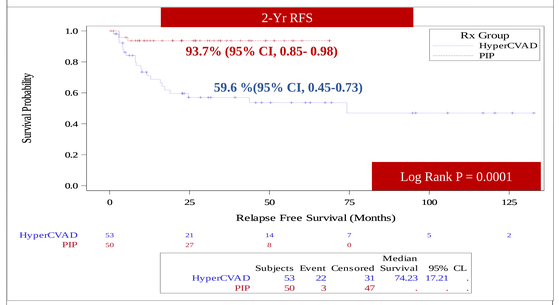
Medical records of AYA (age:18-40 years) patients with Philadelphia negative ALL diagnosed and treated at King Hussein Cancer Center between 2010-2022 were reviewed.

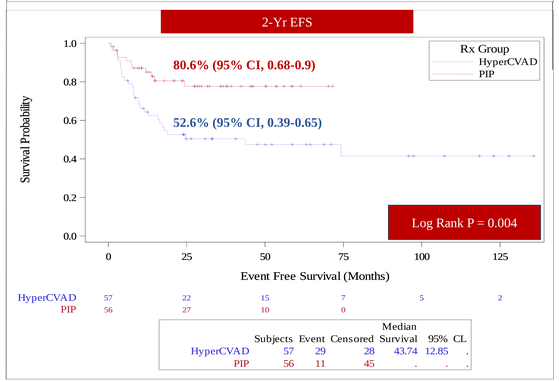
- Poor-risk cytogenetics were defined according to the NCCN guidelines, version 1-2022.
- OS defined from the time of diagnosis until the last follow-up/death.
- RFS defined from the time of achieving CR1 at post-induction evaluation until the date of relapse.
- EFS is defined from the time of diagnosis until relapse/ death from any cause.
- Patients' characteristics were compared using Fisher's exact test and Mann-Whitney test. Survival outcomes were evaluated by the Kaplan-Meier method.

RESULTS

Significant Characteristics	Total numbers	Rx Group		p-value
		HyperCVAD	PIP	
Number of patients	113	57 (50.5%)	56(49.5%)	
Age in years (Median, SD)		27 ±7.4	23±4.7	0.018
Cytogenetics	Diploid, 58(51.3%)	29(51%)	29(52%)	0.501
	Others, 19(16.8%)	9(15.8%)	10(17.9%)	
	Failed, 13(11.5%)	9(15.8%)	4(7.1%)	
	Unknown, 23(20.4%)	10 (17.5%)	13 (23.2%)	
End of induction evaluation	CR, 103(92.8%)	53(93.0%)	50(92.6%)	0.999
	Refractory, 8(7.2%)	4(7.0%)	4(7.4%)	
Relapse/Refractory	Neither, 78(70.3%)	31(54.4%)	47(87.0%)	0.005
	Refractory, 8(7.2%)	4(7.0%)	4(7.4%)	
	Relapse, 25(22.5%)	22(38.6%)	3(5.6%)	
Extramedullary relapse	None, 100(90.1%)	48(84.2%)	52(96.3%)	0.057
	CNS, 5(4.5%)	5(8.8%)	0	
	Others, 6(5.4%)	4(7.0%)	2(3.7%)	
AlloSCT	Yes, 27(23.9%)	16(28.1%)	11(19.6%)	0.294
	No, 86(76.1%)	41(71.9%)	45(80.4%)	
Indication for AlloSCT	High risk, 13(48.1%)	6(37.5%)	7(63.6%)	0.071
	Refractory, 4(14.8%)	1(6.3%)	3(27.3%)	
	Relapse, 8(29.6%)	7(43.8%)	1(9.1%)	
	Unknown, 2(7.4%)	2(12.5%)	0	
Outcome at last follow up	CR, 90(80.4%)	41(71.9%)	49(89.1%)	0.004
	Relapse/refractory, 20(17.9%)	16(28.1%)	4(7.3%)	
	Death during induction, 2(1.8%)	0	2(3.6%)	
Alive/Dead	Alive, 82(72.6%)	37(64.9%)	45(80.4%)	0.066
	Dead, 31(27.4%)	20(35.1%)	11(19.6%)	







CONCLUSIONS

- Pediatric inspired protocols improve the 2-year-EFS and RFS compared with HyperCVAD
- No statistically significant difference in 2-year OS between HyperCVAD and PIPs.
- There was no significant difference in rates (CR) or (AlloSCT) between the two treatments.

REFERENCES

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