soho2023
ELEVENTH ANNUAL MEETING

Acute Promyelocytic Leukemia (APL), Kuwait experience

Ahmad Alhuraiji MD[1],Nermin Salem MD[1],Faran Naim MD[1], Mohan Ram MD[1], Anita Kunhikrishnan MD[1], Salem Alshemmari MD[1,2], Abdulaziz Hamadah MD[1], Mahmoud Hasaneen MD[1], Rasha Ghonema MD[1], Abdul Rashid Shah MD[1], Fatima Khadadah MD[1], Ramesh Pandita MD[1].
[1]Kuwait Cancer Control Center, Sabah Health Region Kuwait; [2]Kuwait University, Kuwait.

مركز الكويت لمكافحة السرطان
Kuwait Cancer Control Center

INTRODUCTION

APL is a highly curable malignancy with a high risk of early morbidity and mortality, due to bleeding, differentiation syndrome and infection. We reviewed the baseline characteristics, clinical course and treatment outcome of APL patients treated in Kuwait.

METHODS

Between 2010 and April 2023, 56 patients with APL were included in the study. Demographics, baseline hematological parameters including hemoglobin, white blood cell (WBC) and platelet count, fibrinogen, PT/APTT were recorded. Symptoms at presentation and the patient's Sanz risk category were recorded. Treatment regimen and outcomes were also recorded.

RESULTS

Patients' demographics, risk stratification, treatment protocols, bassline laboratory and clinical presentations are shown in table 1.

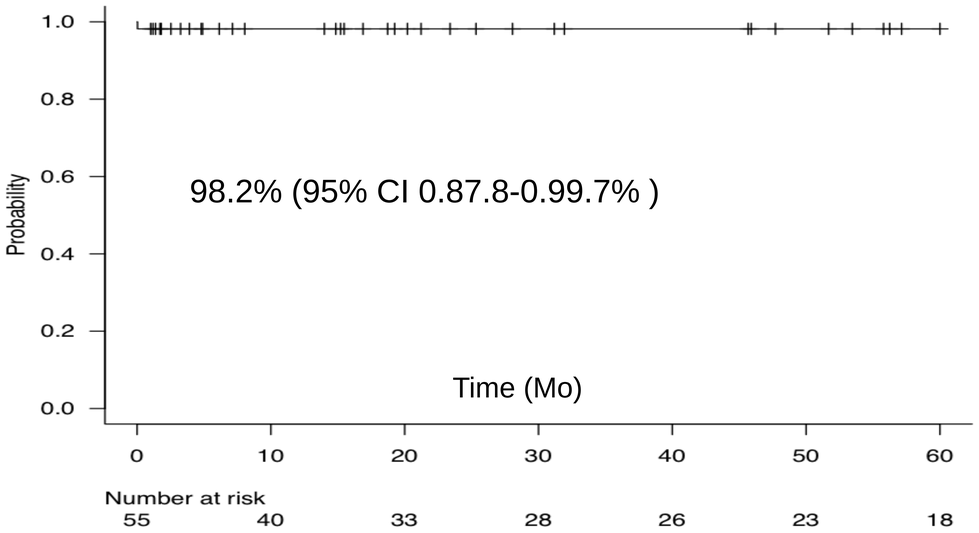
Fifty-three (98.1%) achieved CR among 54 evaluable patients. Complications during induction therapy were febrile neutropenia 27 (48.2%) and differentiation syndrome 22(39.2%). During induction and follow up, 1 patient died during induction, 2 patients were lost to follow up and 1 patient relapsed. At the time of censoring, 53 patients were alive with a median follow up of 45 months (range 0.6 -127 months). Fig.1.

One major limitation is that we only had one early mortality on day 1 of admission in our cohort which is not consistent with the literature. It is likely that some APL cases died early before reaching out center and were not included in this analysis.

Table 1

Median follow up	45 Mo
Median age	41 years
Sex:	
Female	23 (41 %)
Male	33 (59 %)
Male to female ratio	1.41
Nationality	Kuwaiti : 10 (18 %)
Bleeding at presentation	39 (69.6 %)
Baseline parameters:	
Median WBC	4.4x 109/L (range 0.4-83)
Median Platlets	19x 109/L (range 4-148
Median Hemoglobin	81.5g/L (range 29-146
Laboratory DIC (Fib. < 1.5)	11 (19.6 %)
Elevated LDH	56 (100 %)
Median Prothrombin time	18.9s (range 12.1-207)
Median Partial Thromboplastin time	28.85s (range 18.5-71.5)
FISH t (15; 17)	100 % positive
RT PCR for PML RARA	55 (98%) positive
ELN :	
High Risk	14 (25 %)
Standard Risk	40 (71.5 %)
N/Available	2 (3.5 %)
Protocols:	
AIDA	30 (53.5 %)
ATRA+ATO+Ida	2 (3.5 %)
ATRA=ATO	22 (39.2 %)
Complications:	
Differentiation síndrome	22(39.2%)
Febrile neutropenia	27 (48.2%)

Figure 1: Kaplan Meier curve showing survival of APL patients at 5 years (60 Mo)



CONCLUSIONS

Our results showed high CR rates and higher rates of febrile neutropenia and differentiation syndrome but managed well with early intervention and prophylactic measures. Hemorrhagic complication was the most common clinically significant event at presentation.

CONTACT INFORMATION

Ahmad Alhuraiji, Department of hematology, Kuwait Cancer Control Center. Email id: aalhuraiji@moh.gov.kw

REFERENCES

F. Lo-Coco, et al.2013, Avvisati G, et al. 2003