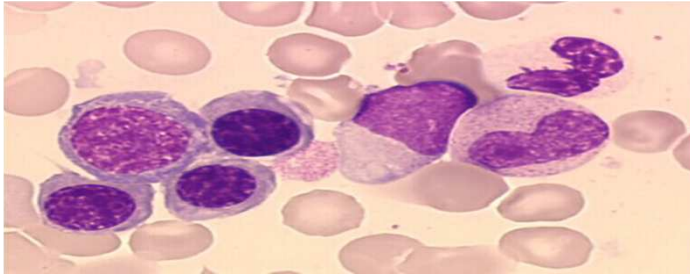


OUTCOME OF ACUTE MYELOID LEUKEMIA IN PATIENTS UP TO 65 YEARS OF AGE AT HEMATOLOGY AND BONE MARROW TRANSPLANTATION UNIT IN ALGIERS DURING 14 YEARS

S.Akhrouf, F.Belhadri, A.Talbi, H.Moussaoui, M.Benakli, N.Ait
amer, F.Tensaout, N.Abdennebi, F.Boukhemia, H.Bouarab, D.Ait
ouali, R.Ahmed Nacer, RM Hamladji.

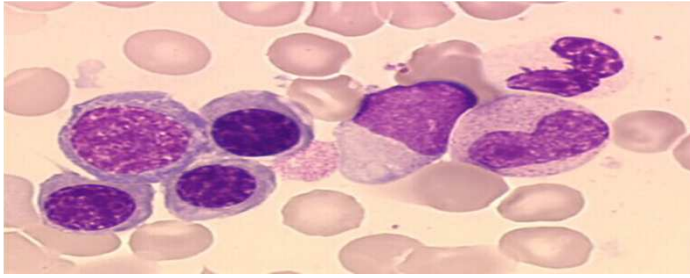
**Hematology Department and BMT unit.
Pierre and Marie Curie Center , Algiers, Algeria.**



BACKGROUND

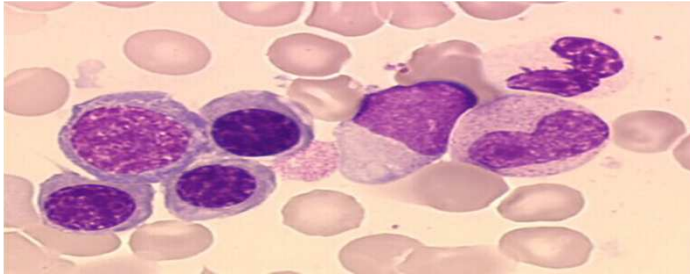
- ❑ Acute myeloid leukemia (AML) is a heterogeneous clonal disorder of haematopoietic progenitor cells.
- ❑ It is the most common type of acute leukemia in adults.
- ❑ We report in this study the therapeutic results obtained in patients (pts) up to 65 years in our center.

Acute promyelocytic leukemia is excluded from this study.



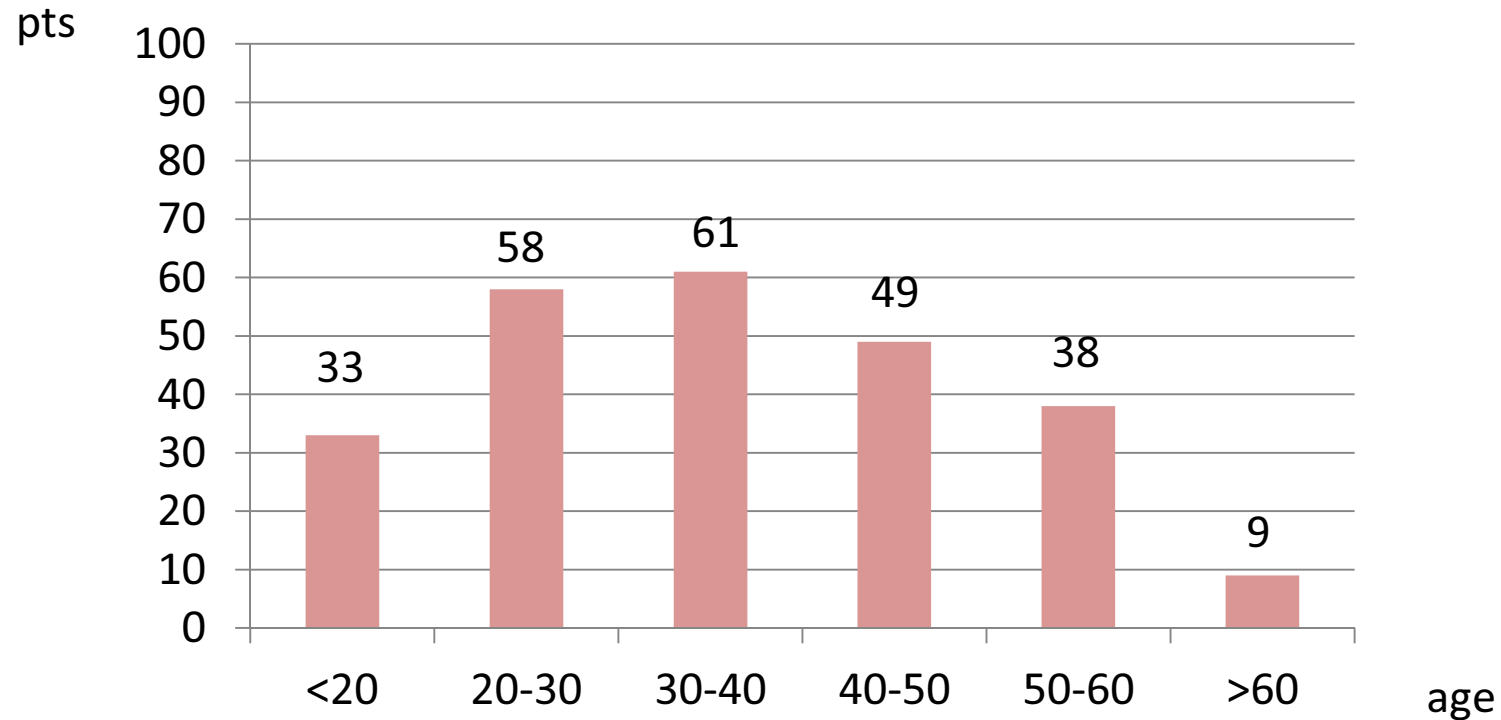
MATERIEL AND METHODS I

- **Period:** January 1999 to December 2012
14 years
- **Patients:** 248 (up to 65 years of age)/
410 pt with AML
- The induction therapy (IT): n = 248 pts

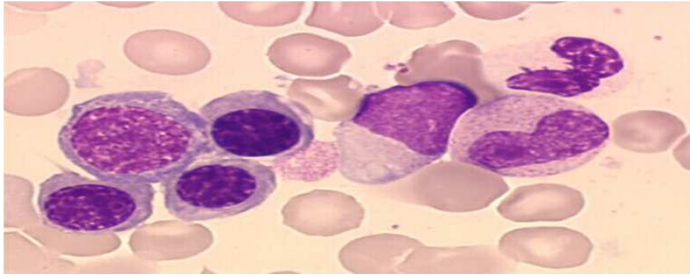


MATERIEL AND METHODS II

DISTRIBUTION BY AGE

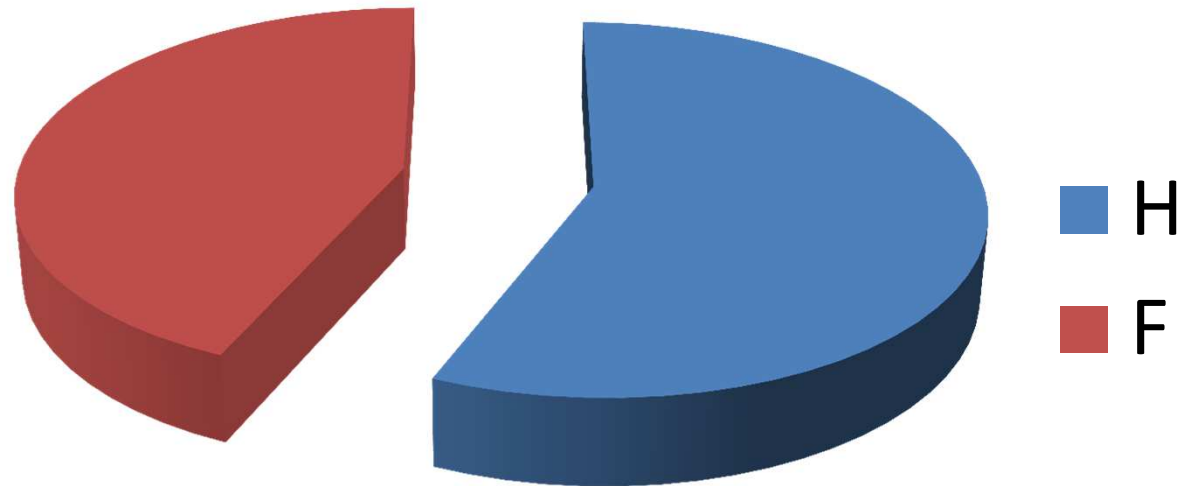


Median age: 35 years [9-65]

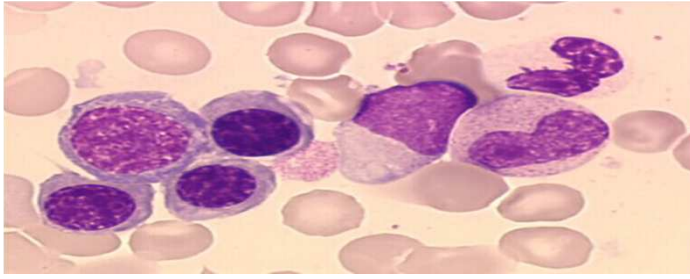


MATERIEL AND METHODS III

DISTRIBUTION BY SEX



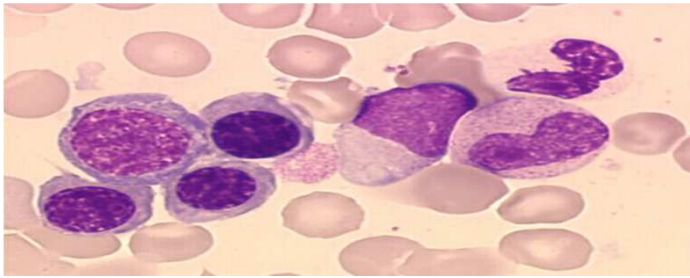
Sex ratio: 1,29 [140M/108F]



MATERIEL AND METHODS IV

DIAGNOSIS

- Blood count (NFS)
- Blood smear
- Cytochemical staining
- Cytological study of bone marrow (FAB classification)
- Immunophenotype



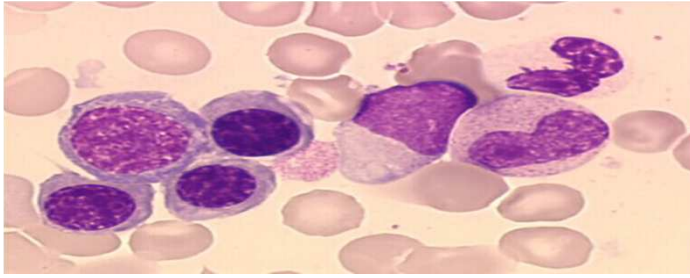
MATERIEL AND METHODS V

Parameters at diagnosis

	median	extremes
Hemoglobin (g/dl)	7,5	3 - 14,4
Platelet (G/l)	39	1 - 342
White blood cell count (G/l)	16,1	0,7 - 780

	N	%
M0	19	7,7
M1	59	23,8
M2	77	31
M4	71	29
M5	15	6
M6	6	2,1
dendritic	1	0,4

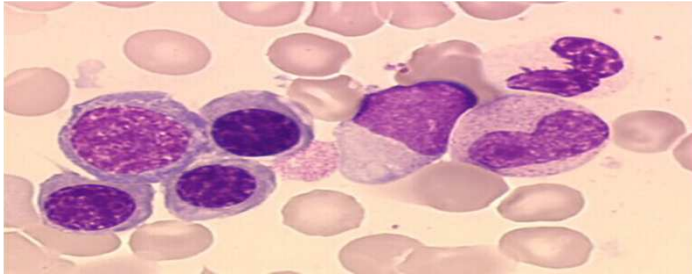
FAB classification + immunophenotype



MATERIEL AND METHODS VI

TREATMENT (n=248 pts)

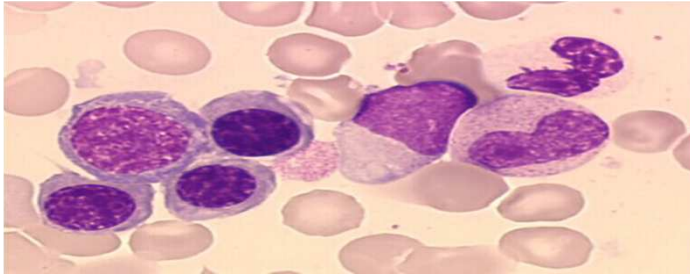
- ✓ Symptomatic treatment
- ✓ Specific treatment:
 - Induction therapy: 3 + 7 or 10
 - Daunorubicine: 60 mg/m² (3 days)
 - Cytarabine: 100 mg/m² (7 or 10 days)
 - Consolidation therapy:
 - Cytarabine: 2 g/m² x 2/j (3 days)
 - 1 at 4 cures



RESULTS I

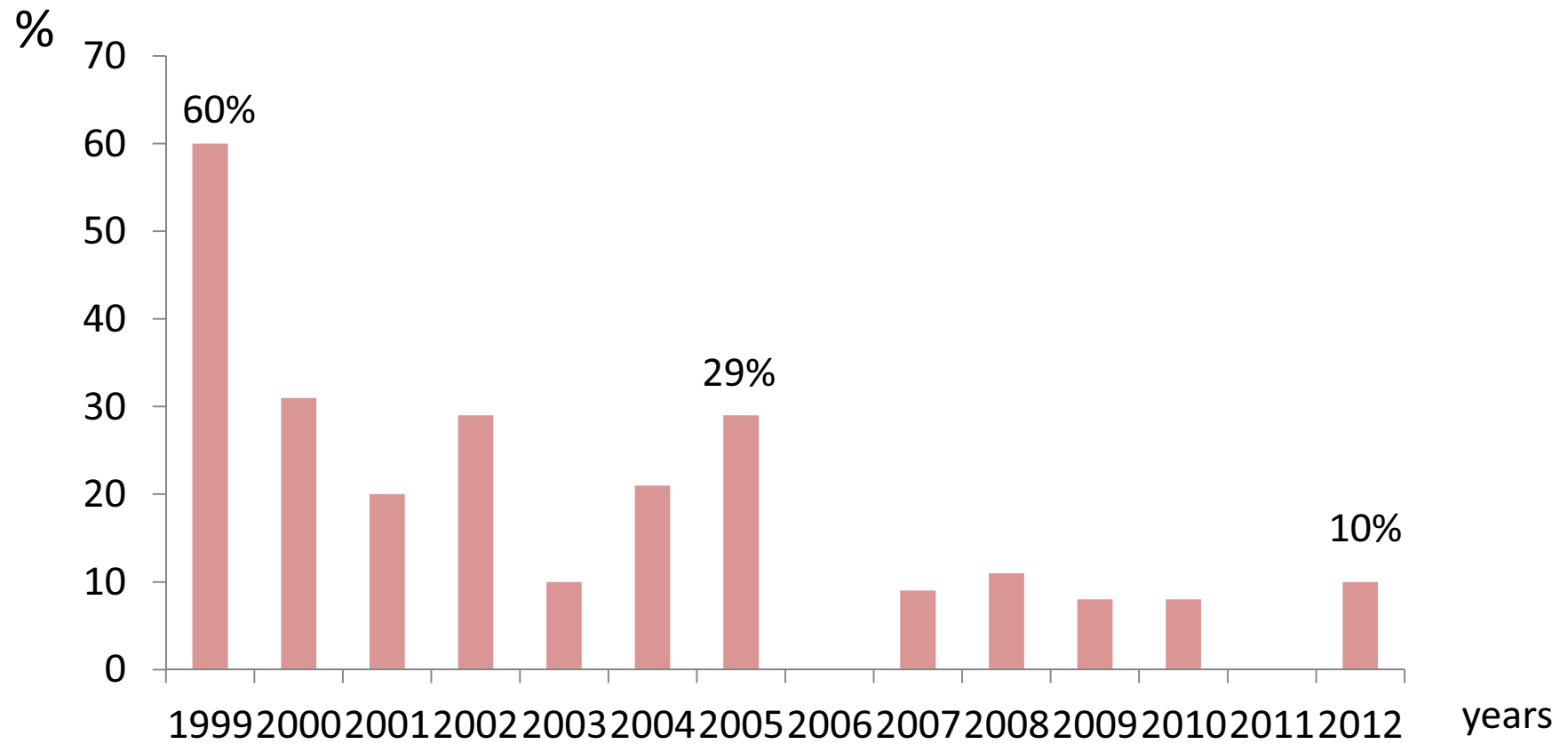
- Early death: 46 pts (18,5%)
- Response after treatment: 202 pts (81,5%)

	pts	%
Complete response (CR)	158/202	78,8%
failure	44/202	21,8%

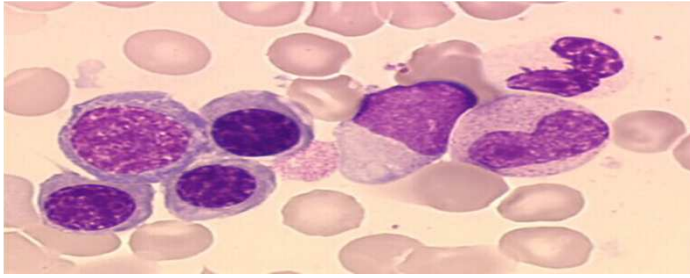


RESULTS II

Early death: 46pts (18,5%)



Ditribution of death based on year



RESULTS III

Follow up of 202 pts evaluable

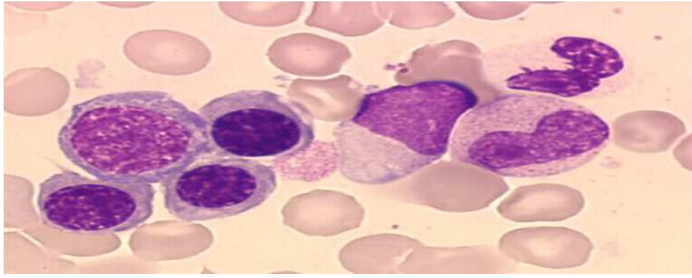
At 31 December 2013

Median follow up: **96** months (12-169)

✓ 71pts (**35%**) are still alive

- CR: 69pts (34%) (34pts after ASCT)
- relapse: 2pt (1%) (1pt after ASCT)

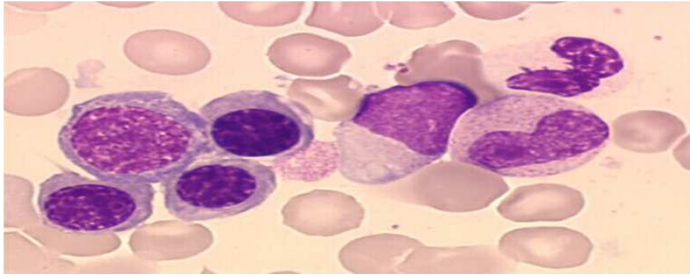
✓ 131pts (**65%**) died



RESULTS IV

Follow up of 158 pts in CR post induction:

	No ASHCT 101pts (64%)		AHSCT 57pts (36%)		P
	N	%	N	%	
CR persistent	35	35	34	60	< 0,01 (S)
relapse	42	41,5	1	1,7	< 10 ⁻⁶ (S)
Death	65	64	22	38,5	< 0,001 (S)



RESULTS V

CAUSES OF DEATH : n= 131/202pts (65%)

✓ Deaths in CR: 51pts (39%)

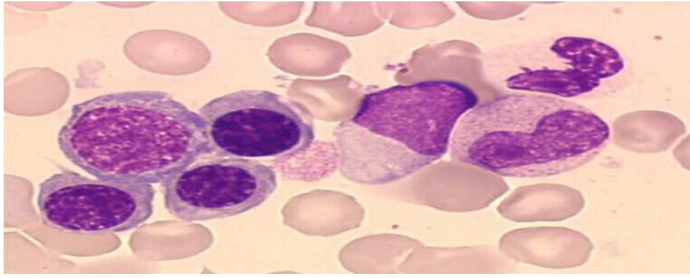
After AHSCT: 22 pts

Aplasia post induction: 20 pts

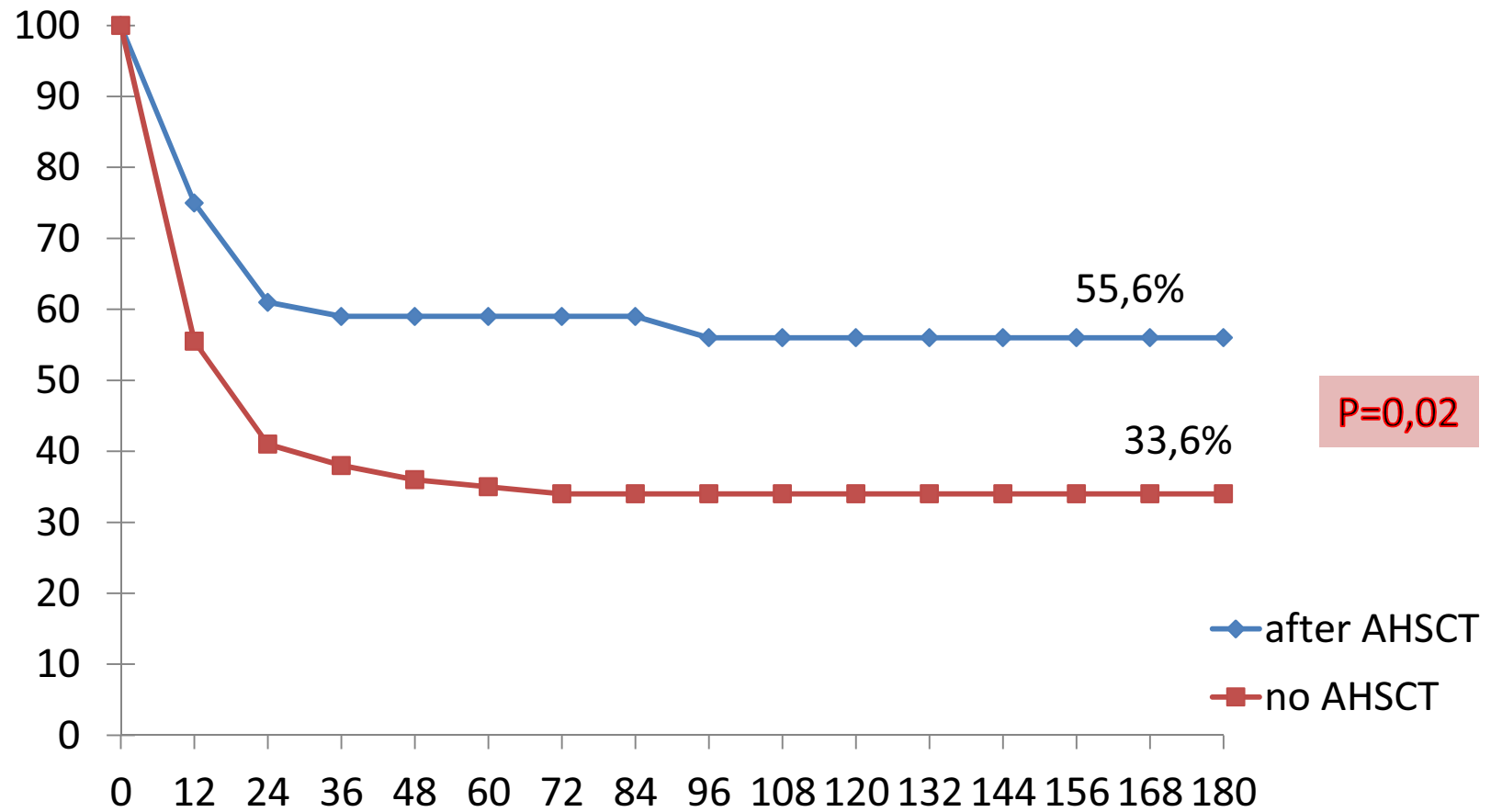
Another causes: 9 pts

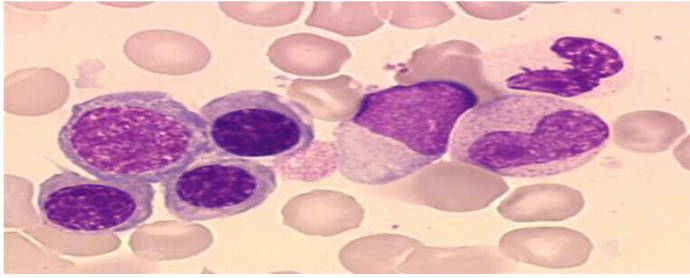
✓ Death in relapse: 39 pts (30%)

✓ Death after failure: 41 pts (31%)

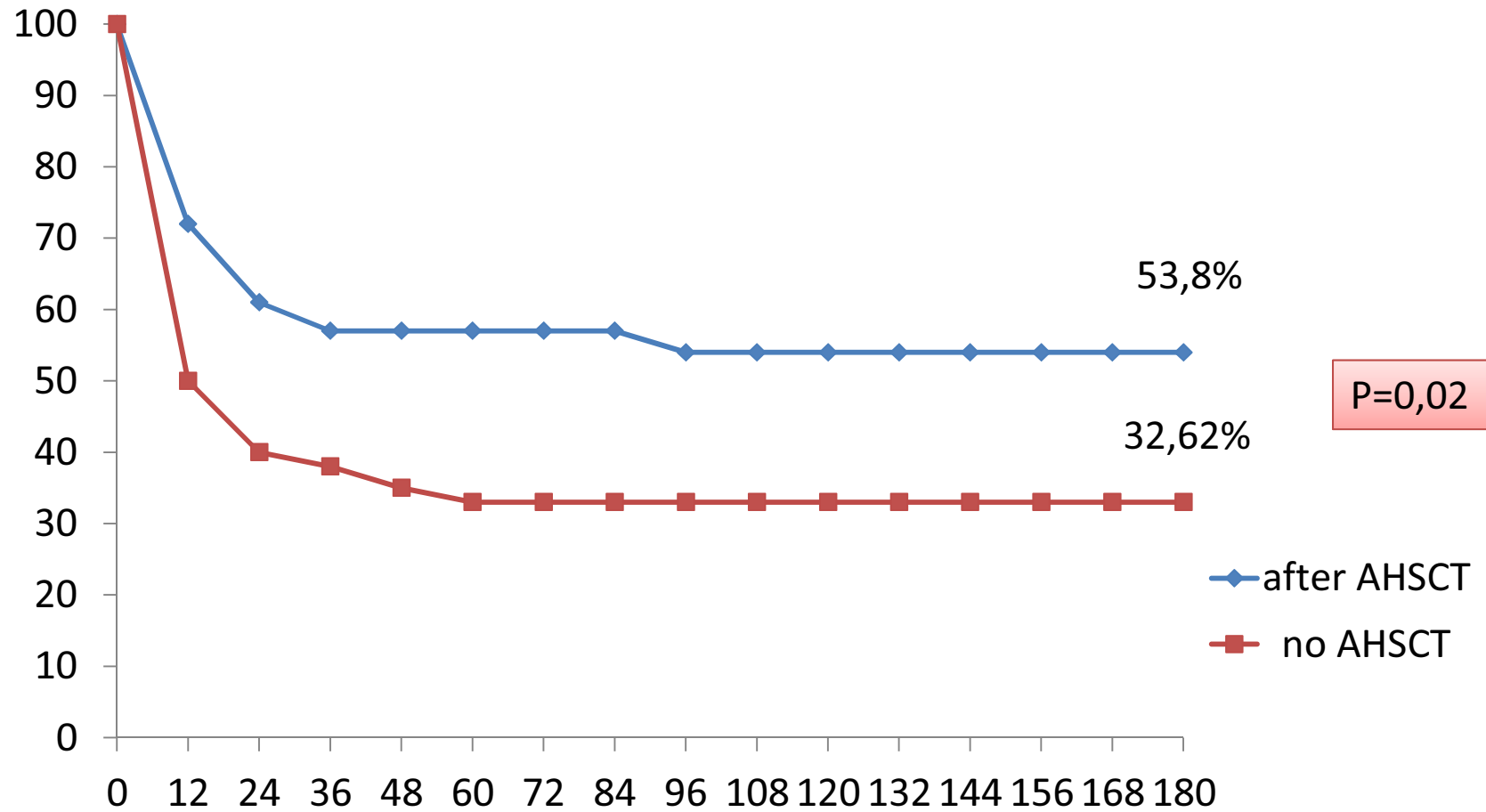


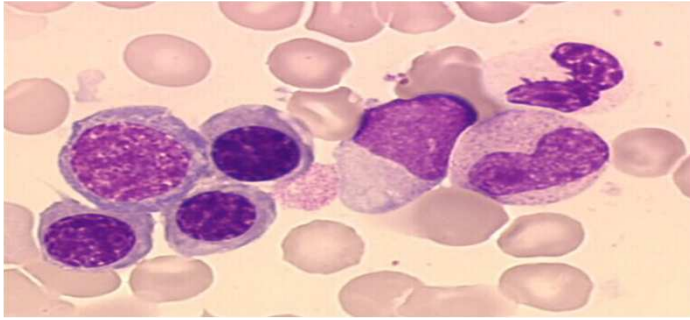
THE OVERALL SURVIVAL (OS)





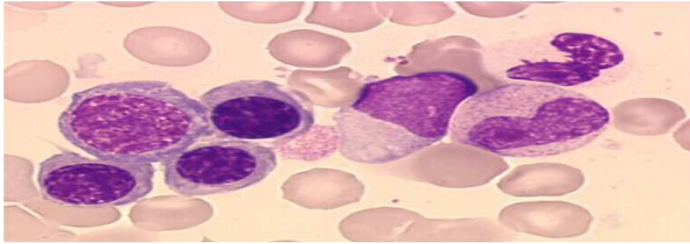
THE DISEASE FREE SURVIVAL (DFS)





DISCUSSION I

- 1- Deaths in induction therapy are important, but they **decreased** in the time.
- 2- Complete response rate was satisfactory but can be improved by induction intensification (**Rubidomycine: 90 mg/m²**).
- 3- The superiority of the **Allogeneic HSCT** on chemotherapy alone in terms of OS and DFS.

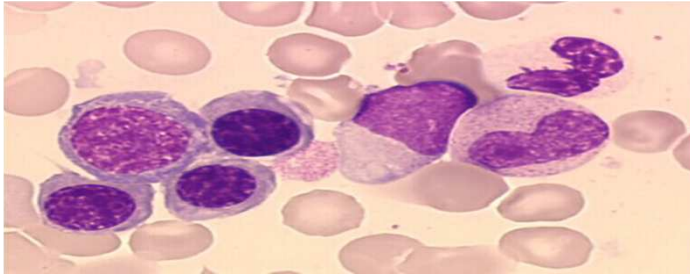


DISCUSSION II

- 4- Therapeutic attitude in our unit:
 - ✓ Allogeneic HSCT in first CR if donor HLA compatible
 - ✓ Haplo-identical HSCT in second CR if no donor HLA compatible

- 5- Factors that influence our choice:
 - ✓ Cytogenetics not available
 - ✓ CBF AML represent 15%
(study in our department by Dr Hariéche)
 - ✓ In the literature: C-Kit was found in 20% to 50% of CBF AML and is associated with increased risk of relapse (*)

(*) Koreth J, Schlenk R, Kopecky KJ, et al. Allogeneic stem cell transplantation for acute myeloid leukemia in first complete remission: systematic review and meta-analysis of prospective clinical trials. JAMA 2009; 301: 2349-2361.



CONCLUSION

- ❑ This study, after a long follow-up, shows that the rate of relapse after chemotherapy alone remain high.
- ❑ Allogeneic HSCT remains the only curative option, so to perform quickly after obtaining the CR.