TARGETED THERAPY FOR R/R FLT3-POSITIVE AML IS ALSO EFFECTIVE, BUT LESS TOXIC AND HAS BETTER LONG-TERM RESULTS THAN SALVAGE INTENSIVE CHEMOTHERAPY

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CONTEXT

Patients with FLT3-mutated acute myeloid leukemia (AML) have poor prognosis. The choice of the most optimal therapy is an actual problem.

OBJECTIVE

To compare the efficacy, safe and survival rates of salvage intensive chemotherapy (IC) and targeted therapy in patients with FLT3-mutated relapsed/refractory (R/R) AML.

DESIGN

A retrospective study was conducted, which included patients with FLT3-mutated R/R AML. Patients received IC (FLAG+/-Ida) or gilteritinib (as monotherapy or combination with venetoclax, azacitidine).

PATIENTS AND METHODS

The study included 24 patients (12 women, 12 men), median age – 42 years, 54,2 % (13/24) with relapsed and 45,8 % (11/24) with refractory AML. 61,5 % (8/13) patients had early relapse. 13 patients received IC, 11 patients received gilteritinib (5 pts as monotherapy, 2 pts combination with venetoclax, 4 – combination with venetoclax and azacitidine).

Table 1. Characteristics of patients

Patients	n=24
Sex: female/male	12 (50%)/12 (50%)
Median age (range)	42 (18-83)
Relapse/Refractory	13/11
IC	13
Gilteritinib monotherapy	5
Gilteritinib+venetoclax	2
Gilteritinib+venetoclax+ azacitidine	4

INTERVENTIONS

Some patients received salvage IC therapy; others received gilteritinib therapy.

RESULTS

Overall response rates (CR, CRMRD-; CRi, MFLS) did not differ significantly between the two groups (63 % in gilteritinib group and 60 % in IC group) (Tabl. 2). Median time to remission was shorter in the IC group than in the gilteritinib group (0,8 mon. vs 1,5 mon., respectively). There was no early mortality in the gilteritinib group, in the IC group it was 23% (3/11). Serious adverse events were more common in the IC group than in the gilteritinib group (61,5 % vs 18,1 %, respectively, p=0,032). In the gilteritinib group, more patients underwent allogeneic hematopoietic stem cell transplantation (HSCT) (72,7% vs 58,3 %).

The overall survival and relapse-free survival were longer in gilteritinib group than in IC group (20,4 mon. vs 15,3 mon.; 7,9 mon. vs 3,37 mon., respectively).

Table 2. Response after treatment

Response	IC n=13 (%)	gilteritinib n=11 (%)
Overall response	6 (60%)*	7 (63%)
CR	4 (40%)	1 (9%)
$CR_{MRD(-)}$	1 (10%)	1 (9%)
CRi	1 (10%)	5 (45%)
Refractory	4 (40%)*	4 (37%)
Early mortality	3 (23%)	0
HSCT	7 (58,3%)	8 (72,7%)
SAEs	8 (61,5%)	2 (18,1 %)

* The response was assessed in 10 patients

CONCLUSION

Gilteritinib therapy is comparable in efficacy to salvage IC in patients with FLT3-mutated R/R AML, but has been shown to be safer and has better survival rates. Gilteritinib is optimal bridge therapy to allogeneic HSCT.