Impact of Body Mass Index on Complete Remission Rates in Patients with Acute Myeloid Leukemia

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Background

- The impact of body mass index of the outcome in patients with acute myeloid leukemia has been assessed in different studies. However, the results remain controversial.

Objective

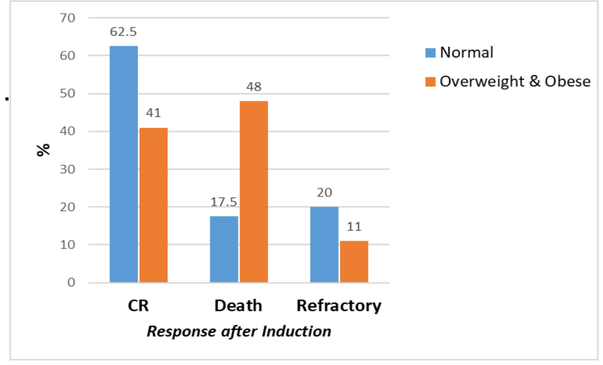
- The aim of our study was to assess the impact of BMI on the response to induction chemotherapy in adult patients with newly diagnosed AML.

Methods

- The study enrolled 140 patients with AML. The data were collected from Oncology Center, Mansoura University (OCMU) electronic medical record (eMR).
- They are further classified according to BMI into patients with normal BMI (40 patients), overweight (42 patients) and obese patients (58 patients). All patients received induction chemotherapy with 3+7 protocol (three days of anthracycline+ seven days of cytrabine).

Results

- Among the 40 patients with normal BMI, 25 patients (62.5%) achieved Complete Remission (CR), 7 patients (17.5%) died, and 8 patients (20%) were refractory to induction chemotherapy.
- Among those 8 patients, 7 received salvage chemotherapy with 4 patients achieving CR and 3 deaths.
- As regard the 42 overweight patients, 14 patients (33.3%) attained CR, 22 patients (52.4%) died, and 6 patients (14.3%) remained refractory.
- After salvage chemotherapy 3 patients achieved CR and 3 patients died. When it comes to the 58 obese patients, 27 patients (46.6%) achieved CR, 26 patients (44.8%) died, and 5 patients were refractory. 4 of those refractory patients received salvage chemotherapy and all died.



Summary

As regard CR rates after induction chemotherapy, our study concluded that CR rates are higher in patients with normal BMI when compared to overweight and obese patients (95% CI, p=0.004). A larger, prospective randomized trial would be required to confirm these results.

References

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