

Cladribine – still important in era of new therapies

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Cladribine (2-CdA, 2-chlorodeoxyadenosine) is a purine analog and is a standard therapeutic option for hairy cell leukemia (HCL), enabling long-lasting clinical remission even in monotherapy [1, 2]. Cladribine combinations have also been tested in various other lymphoid and myeloid malignancies. Its additional demethylating properties are beneficial in treating some acute myeloid leukemia (AML) subtypes [3, 4]. A survival advantage of the cladribine-daunorubicin-cytarabine (DAC) induction arm has been observed among patients aged 50 years or older with high initial leukocytosis and adverse karyotype [3]. Further retrospective analyses showed that DAC was superior to daunorubicin-cytarabine (DA) induction in AML patients bearing internal tandem duplications in the *FLT3* gene (*FLT3-ITD* mutations) or *IDH2* mutations [4, 5]. Cladribine has also been successfully incorporated into AML salvage regimens, as shown in a prospective, non-randomized phase II study in younger AML patients who achieved unsatisfactory responses to DAC as their first induction. The administration of cladribine combined with cytarabine and mitoxantrone (CLAM) was an early second induction on day 16 of the post-induction treatment. Although CLAM did increase the complete remission rates, some concerns were raised concerning increased toxicity and mortality.

In this issue, Brzozowski et al. [7] present a retrospective analysis of patients with AML aged less than 60 who had $\geq 10\%$ blasts in their early bone marrow evaluation on day 14 of their DAC first induction cycle who were treated according to the PALG-AML-1/2012 and PALG AML-1/2016 studies. The authors compared the toxicity and effectiveness of DAC to those of CLAM used as a second induction regimen, showing that both regimens were comparable regarding these two parameters. However, it must be emphasized that the number of analyzed patients was small, and the study was retrospective.

Although significant progress has been made in treating AML in recent years, classical cytostatic compounds still constitute a viable treatment option. Current clinical trials often combine them with novel agents in the hope of achieving further breakthroughs, as was the case in the venetoclax-azacitidine (Ven-Aza) combination in elderly comorbid AML patients [8].

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Conflicts of interest

The author declares no conflict of interest.

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Supplementary material

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