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ASH 2010: new drugs and novel therapeutic concepts on the move

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The 52nd Annual Meeting of the American Society of Hematology (ASH) which took place from December 3rd to 7th 2010 in Orlando/Florida was attended by more than 20,000 participants. Over 3,000 presentations comprised the data from out of >5000 abstracts. Thus, for attendees and non-attendees alike it is obviously challenging to extract the most relevant data out of this wealth of information. Therefore, in

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this issue of memo distinct experts in the field have taken on the task of working through the data to present a (subjective) selection of the most interesting and clinically relevant data for clinical decision making in the future.

Overall, the emphasis at ASH 2010 was not on large practice-changing clinical trials but rather on the continuing progress in basic science and early clinical studies exploring novel therapeutic concepts and/or new drugs.

In the field of B-cell neoplasms deeper insight into lymphoma biology is now being translated into novel treatment strategies. As discussed by Melchardt and colleagues [1] sev-

eral small molecules targeting intracellular pathways involved in lymphomagenesis, in particular the B-cell receptor signalling pathways, are now available and have shown promising results. The same holds true for chronic lymphocytic leukaemia (CLL), a disease where tonic BCR signalling is also of vital pathogenetic importance as mentioned by Steurer & Schmidt [2]. Thus, it will be exciting to see if new players such as inhibitors to phosphatidylinositol-3-kinase (e.g., CAL 101), SYK (e.g., fostamatinib) and Bruton's tyrosine kinase (e.g., PCI-32765) will be able to ameliorate clinical results achievable with currently applied immunochemotherapeutic strategies. However, that treatment modification even with seemingly "old-fashioned drugs" such as cytarabine may still be useful has been underscored in mantle cell lymphoma as discussed by Drach [3]. The potentially practice-changing data presented on the treatment of 497 mantle cell lymphoma patients <65 years suggest that the incorporation of cytarabine into the induction regimen may be clinically beneficial.

Concerning myeloid neoplasms the main focus was also rather on new drugs as mentioned by Sperr and Valent [4], Nösslinger and Pfeilstöcker [5] and Rudzki and Wolf [6]. In particular the introduction of the novel tyrosine kinase inhibitor (TKI) ponatinib offers good news for chronic myeloid leukaemia (CML) patients harbouring the T315I mutation, which confers resistance to most first and second generation TKIs. Considering the high rate of relapses in spite of good initial responses the concept of post consolidation maintenance treatment appears a promising approach for acute myeloid leukaemia (AML). In this context the data presented on the use of PKC412 (midostaurin) but also on vaccination

strategies with Wilm's tumour protein 1 (WT1) are certainly interesting and merit further testing. Hopefully, these efforts lead to comparable results as in multiple myeloma, where maintenance strategies have already been successfully implemented as discussed by Günsilius and Willenbacher [7].

In summary, haematology as a discipline has become very complex largely because of the progress made in recent years, sometimes with perplexing speed. It is therefore exciting to witness novel treatment concepts and new drugs on the move as evidenced by the data presented at ASH 2010. And ultimately, we should continue to enroll as many patients as possible on well-designed clinical trials – both academic and industry-sponsored-aiming at further improvement of the clinical standards.

Conflict of interest

The author has no conflicts of interest to disclose.

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