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Invited abstracts

Extranodal lymphomas

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Primary CNS lymphomas

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The use of high-dose methotrexate (HD-MTX)-based chemotherapy, followed or not by whole-brain radiotherapy, is the commonest therapeutic approach for primary central nervous system lymphomas (PCNSL) [1]. The current therapeutic knowledge in this field comes from non-randomized phase-II trials, meta-analyses of published series, large retrospective, multicentre series, and a single phase III trial, which was prematurely terminated due to inadequate accrual. Numerous methodological pitfalls were highlighted in both prospective and retrospective series, further hampering interpretation of results. Importantly, the first worldwide randomized trial with completed accrual was recently reported [2]. This trial demonstrated that, in patients ≤ 75 years old with PCNSL, the addition of HD-cytarabine to HD-MTX results in consistently better outcome and acceptable toxicity over HD-MTX alone. MTX+cytarabine is an active combination that may be considered as the control arm for future randomized trials since it is supported by the best level of evidence available in the field of PCNSL. Despite this benefit, current results in PCNSL patients remain unsatisfactory. Accordingly to the worldwide used therapeutic strategies for aggressive lymphomas, it is unthinkable to treat PCNSL exclusively with antimetabolites and the assessment of other drugs active against other phases of the tumour cell cycle should be considered for future trials. Some alkylating agents (i.e., temozolomide, ifosfamide, thiotepa, nitrosoureas) are interesting candidates since they are able to cross the blood-brain barrier, exhibit anti-lymphoma activity, are active against phase-G0 cells, and increase cytotoxicity of antimetabolites. Rituximab could be another candidate, especially considering its safe profile. Its combination with HD-MTX-based chemotherapy is feasible [3], but several doubts on its capability to cross the blood-brain barrier exist. High-dose chemotherapy supported by ASCT has produced encouraging results in PCNSL [4]. However, this strategy seems feasible in young and fit patients, which excludes one third of PCNSL patients. Interestingly, some authors recently suggested that this strategy could replace consolidation radiotherapy [5], which deserves to be assessed in a future randomized trial. It is clear that a more effective international multidisciplinary collaboration is needed in the fight against PCNSL. Evaluation of single agents in phase II trials on patients with failed PCNSL, and definition and assessment of treatment-related neurotoxicity in prospective trials should be strongly encouraged.

Reference(s)

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Secondary CNS involvement: Who needs, and which type of, CNS prophylaxis?

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Secondary central nervous system (CNS) involvement occurs with a variable frequency in adult patients affected by non-Hodgkin lymphoma (NHL). This complication can be detected as isolated site of relapse from a systemic lymphoma or in association with systemic disease. In any form, secondary CNS involvement represents a devastating and usually fatal complication of NHL, with a median survival of 4-5 months. Lymphoma cells can reach the CNS by haematogenous route, spreading directly from adjacent bones or by centripetal growth along neurovascular structures, which is more common in lymphomas of the regions near of the base of skull [1]. Various risk factors and models for CNS recurrence have been described. Aggressive lymphomas like diffuse large B cell lymphomas (DLBCL) [2] are more likely to involve the CNS, and there is an increased risk of CNS dissemination when patients present with advanced disease, an involvement of certain extranodal organs (testes, breast, ovary, paranasal sinuses, skin, soft tissue and bone marrow) [3-6] and localisations in the anatomical regions near to the base of the skull, an high age-adjusted International Prognostic Index (aaIPI), an elevated serum lactate dehydrogenase (LDH). In general, secondary CNS involvement occurs within the first 14 months from