Diagnosis and treatment of chronic lymphocytic leukaemia: practical remarks

Commentary on Graves’ thyrotoxicosis in a patient with metastatic differentiated thyroid carcinoma and chronic lymphocytic leukaemia (CLL)

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Dr Makarewicz et al. recently published an interesting case report on autoimmune thyrotoxicosis and metastatic thyroid carcinoma in a chronic lymphocytic leukaemia (CLL) patient [1]. From a haematologist’s point of view I would like to comment on several aspects regarding the diagnosis and management of CLL. Firstly, diagnosis of CLL should not be made on the basis of plain cytology (irrespective of peripheral blood or bone marrow) because it is not possible to cytologically distinguish other lymphoproliferative disorders such as disseminated follicular lymphoma, mantle cell lymphoma or splenic lymphoma with villous lymphocytes with 100% certainty. Therefore, internationally accepted diagnostic criteria for CLL require not only absolute lymphocytosis of 5×10⁹/l but also the characteristic immunophenotype of malignant cells (CD5+/19+/23+/sIg<sup>+</sup>) obtained by flow cytometry [2]. On the other hand, examination of bone marrow is not routinely required for diagnosis of CLL. Secondly, steroids are not recommended as the treatment of choice in CLL unless autoimmune haemolytic anaemia or autoimmune thrombocytopenia is present [3]. In order to determine the cause of thrombocytopenia, the patient should have HAD bone marrow cytology or biopsy. In the case of autoimmune anaemia or thrombocytopenia, the recommended dose of steroids is 1 mg/kg [4]; if thrombocytopenia results from marked bone marrow infiltration, the patient should receive either chlorambucil (reserved for elderly or severely comorbid patients) or a combination protocol based on purine analogues such as fludarabine or cladribine (particularly popular in Poland) used in younger and fit patients [5]. Thirdly, CLL was historically not considered to be associated with radiation (as the authors state). However, several studies have recently shown increased incidence of CLL among nuclear facility workers, uranium miners and victims of the Chernobyl disaster [6-8]. Lastly, CLL is due to complex immune derangement associated not only with autoimmune phenomena and diseases but also with increased incidence of various secondary malignancies [9]. As the majority of CLL patients are nowadays diagnosed...
due to the incidental finding of leukocytosis (during routine check-ups, before operations, etc.) during the asymptomatic phase of the disease (which may actually last dozens of years), one may speculate that the patient has already had CLL for some time before the actual diagnosis and that immunosuppression caused by a CLL clone may have led to the development of thyroid carcinoma.

**References**