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Editorial

Too Many Diseases!

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Combined use of morphology, immunohistochemistry, molecular analysis, and other tools developed recently yielded "new" diseases in the field of histopathologic diagnosis. In lymphoid neoplasm, tumors had been classified mainly based on their morphological features of growth pattern and size and shape of tumor cells, which not infrequently caused intraobserver and interobserver discrepancies in recognition. Thus new system, the Revised European American Classification of Lymphoid Neoplasm (REAL classification), was proposed, in which lymphoid neoplasms are classified as disease entity based on the combined findings of clinical, morphological, immunohistochemical, and cytogenetical features. With REAL system, pathologists could classify each case relative reproducibly. Later, WHO classification, which essentially follows the REAL, was introduced and used worldwide.

In the WHO classification, lymphoid neoplasm is categorized into six major groups: precursor B- and T-lymphoblastic leukemia/lymphoma, mature B-cell neoplasms consisting of 27 diseases, mature T-cell and NK-cell neoplasms(18 diseases), Hodgkin lymphoma(five subtypes), histiocytic and dendritic cell neoplasms(8 diseases), and post-transplant lymphoproliferative disorders. Other entities are also listed. When applying WHO system, pathologists recognize one among more than 55 diseases, which must be stressful for them. At employment of theclassification, pathology laboratory must use a set of antibody panel, which might be expensive. In addition, diseases to be listed are increasing at every revision of the classification. At practice, histopathologic diagnosis is made for decision making of treatment regimen; chemotherapy and/or radiotherapy are main modalities of treatment. There are basically, however, less than ten modalities for treatment of lymphoid neoplasms at present.

In another aspect, the list of WHO system consists of various kinds of diseases characterized by different definition from each other. For example, diffuse large B-cell lymphoma (DLBCL), marginal zone B-cell lymphoma, and follicular lymphoma are categorized by morphology and immunophenotype of tumor cells. Adult T-cell lymphoma is characterized by its morphology, immunophenotype, and especially presence of human T-lymphotropic virus type I (HTLV-I), i.e., one of etiologic factors for the disease development. As such, we find that the list of diseases in the WHO system is heterogenous in definition.

What are required at classification of diseases; for clinical practice, research of etiologic factors, or others? Facing with list of enormous number of diseases, which is even growing, simplification and integration of the system seems to be desirable for, at least,pathologists in practice.

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