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WHO Classification of Lymphoid Neoplasm *–A goal, or a new starting point?*

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Forty nine subtypes were listed on human lymphoid malignancy in the new WHO hematopathology textbook (Tumors of Hematopoietic and Lymphoid Tissues, IARC, 2001). Those subtypes were defined by three different backgrounds, morphology, immuno-phenotyping and genetic/chromosomal changes. It is the product of compromise.

It is clear nowadays that pure morphology is not sufficient to classify clinically identical cases into one subtype, and immunophenotype, a powerful supportive technique, still is not either. We can quite easily find out cases that could not be diagnosed on those technologies. On the other hand, genetic changes are the real causes of human lymphoid malignancies. They also are fully responsible for the clinical characteristics of each cases. Thus, it will be logical and convincing to classify lymphoid neoplasms by the responsible genetic changes. Actually, the new WHO classification is taking

special consideration on genetic aspect: There are so much as 6 subtypes in hematopoietic and lymphoid malignancies which are defined simply by their characteristic genetic abnormalities. However, such strategy could not be applied on other subtypes since a large portion of genetic changes remains unclear. Around 50 genetic changes/chromosomal changes are listed in the WHO textbook, and over 10 new members are identified after its publication. Meanwhile, there are over 150 chromosomal abnormalities in reported lymphoid malignancies and the real number of genetic changes that are responsible for lymphomagenesis will be far more bigger. Then, will it be possible in future to classify lymphoid malignancies purely from genetic background? The reply will be “yes, probably”.

I would like to discuss in the lecture how the genetic studies will progress and how they will change lymphoma subtyping in coming years.