WS3 : ワークショップ 3 「前立腺癌の病理—最新の知見—」**司会のことば**

Department of Urology, Shimane University School of Medicine¹⁾, Department of Pathology, Mie University, Faculty of Medicine²⁾

Mikio Igawa¹⁾, Taizo Shiraishi²⁾

The advent of the prostate-specific antigen (PSA) test has had a profound impact on the diagnosis of the increasing number of men with organ-confined prostate cancer. A reliable grading system is mandatory because the histologic pattern of prostate cancer correlates significantly with biologic malignancy. Whereas the Gleason grading system is the grading standard, interobserver and intraobserver variability have been reported. Accurate Gleason grading is required for the decision making in the management of prostate cancer patients. Furthermore, premalignant lesions such as prostatic intraepithelial neoplasia, atypical adenomatous hyperplasia on needle biopsy are important in determining tumor biology.

Despite the high prevalence and importance of prostate cancer, the molecular mechanisms underlying its development and progression remain poorly understood. It appears that multiple genes may be involved in the neoplastic process due to the heterogeneity of prostate cancer. Genomic and proteomic alterations (cell adhesion molecules, androgen receptors and Valosin-containing protein) have been assessed and the comprehensions of these will help us to better understand the pathogenesis of prostate cancer. Also, these genetic changes may provide additional objective information to predict the pathological stage and recurrence after treatment. Another tool to predict the pathologic stage is the artificial neural network (ANN), which was developed to overcome the shortcomings of the models based on regression analysis. The ANN has been shown to be more accurate and provide a larger area under ROC than the nomograms based on the logistic regression method.

The focus of this workshop is on accurate grading of prostate cancer, search for genetic changes related to the pathogenesis, and establishment of reliable method to predict the pathological staging. This workshop is expected to make significant contributions to the appropriate management of prostate cancer.

WS3-1**Gleason grading system in Japan**

Department of Pathology, Mie University, Faculty of Medicine

Taizo Shiraishi

Gleason grading score (GS) is a one of the best prognostic factors for the prostate cancer patients. Japanese Urological Association and Japanese Society of Pathology recommend to refer GS in the official guideline for the pathological reports of the prostate cancer. However, the GS has not been so common in Japan as in the United States. The author reviewed about 800 cases of core needle biopsies performed during 1996 and 2003, and summarize the current status on the practice of Gleason grading in Japan.

GS was indicated only 10% of the pathology reports before 1996. The frequency was progressively increased and reached 90% at 2000. The mean discrepancy of GS between an original one and my diagnosis was 1.2 points at 1997 and has been improved to 0.8. The kappa value was comparable to that of WHO grading. The ratio of the cases with Pattern 1, which is not recommended to diagnose in biopsy specimen was slightly improved from 20% at 1998 to 15% 2001.

The Gleason grading system has become popular in Japan. Interobserver variability is still problem although it is improving. The standardization of the Gleason grading system, of which project is currently considered, should be introduced in Japan.