

THE CORRELATION BETWEEN HOMOGENEITY OF GLEASON SCORE AT PROSTATE BIOPSY AND PATHOLOGICAL FINDINGS AFTER RADICAL PROSTATECTOMY IN PATIENTS WITH PROSTATE CANCER

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Objectives: The Gleason score is an important predictor of prostate cancer prognosis. However, the implications of Gleason score (GS) homogeneity of multiple positive cores has not been established. We aimed to assess the correlation between homogeneity of GS at prostate biopsy and pathological findings after radical prostatectomy in patients with prostate cancer.

Materials and Methods: Total 124 prostate cancer patients who had undergone radical prostatectomy were enrolled in this study. All patients underwent multiple core (12 cores) prostate biopsies. We divided two groups as homogeneous group (HG) (same GS in all positive cores in prostate biopsy, 69 patients, mean age: 68.0±5.3, years) and inhomogeneous group (IHG) (different GS in each positive core in prostate biopsy, 55 patients, mean age: 70.0±7.4, years). And we subdivided A group (GS=7) and B group (GS≥8) according to GS and evaluated each correlation.

Results: Mean PSA and prostate size was 7.4±17.7, ng/ml, 30.0±15.4, g in HG and 10.2±18.8, ng/ml, 27.5±15.6, g in IHG, respectively. In patients with GS of 7, IHG had significantly higher T stage, more extracapsular extension, peripheral nerve involvement, and positive resection margin compared than HG (each p<0.05). In patients with GS over 8, IHG had larger tumor volume (p=0.006) and multiple tumor locations (p=0.01) compared than HG. However, other pathologic parameters were not significantly different (each >0.05).

Conclusions: In patients with GS of 7 at prostate biopsy, IHG were higher than HG in the postoperative T stage, rate of extracapsular extension, peripheral nerve involvement and positive margins. In patients with GS over 8 at prostate biopsy, there was no significant difference between HG and IHG. Therefore, patients with GS of 7 and IHG are needed more attention while we perform the radical prostatectomy.