P066 Clinical and pathologic characteristics of familial prostate cancer in Asian population

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Introduction & Objectives: We investigated prevalence of familial and hereditary prostate cancer (PCa) in Asian population, and compared clinical characteristics between familial and sporadic disease.

Materials & Methods: Pedigrees of 1,102 patients who were treated for PCa were prospectively acquired. Clinical and pathologic characteristics, and biochemical recurrence (BCR)-free survival were compared between familial PCa and sporadic PCa in patients who underwent radical prostatectomy (RP; n=751).

Results: The prevalence of familial, first-degree familial, and hereditary PCa was found to be 8.4%, 6.7%, and 0.9%, respectively; similar result was obtained in patients who underwent RP (8.4%, 6.4%, and 0.9%). Patients with familial PCa were significantly younger than those with sporadic PCa (63.3 vs. 65.6 years, p=0.015). However, preoperative variables (prostate-specific antigen, clinical stage, biopsy Gleason score, and percentage of positive biopsy cores) and postoperative variables (surgical Gleason score, upgrading rate, pathologic stage, and percentage of tumor volume) did not correlate with family history (p range, 0.114–0.982). Kaplan-Meier analysis of 5-year BCR-free survival revealed no significant difference between sporadic (82.7%), familial (89.4%, p=0.594), and first-degree familial (87.1%, p=0.774) PCa. Analysis of p53, Bcl-2, Ki67, and other immunohistochemistry biomarkers revealed that only increasing p53 expression and first-degree familial PCa approached significance (p=0.059).

Conclusions: The prevalence of familial PCa was somewhat lower in the Asian population than in other ethnic groups. Clinical and pathologic variables and selected histologic biomarker abnormalities were not significantly different in patients with and without a family history of PCa. BCR-free survival following RP was also unaffected by family history.