

Comparison of Overall Survival Between the Life Expectancy and the Actual Estimated Outcome in Patients Who Underwent Radical Nephrectomy for Renal Cell Carcinoma

Introduction and Objective: To compare overall survival between the life expectancy and the actual estimated outcome in patients who underwent radical nephrectomy for renal cell carcinoma.

Materials and Methods: Between 1989 and 2008, 1113 consecutive patients were enrolled. The median follow-up period was 38 months (mean: 52.4, range 1-227). The life expectancy was defined by using simple life table for Japanese. The overall survival was estimated by Kaplan-Meier method. The difference was tested by log-rank test.

Results: The 5-year life expectancy of all patients was 99.8%, while the actual 5-year estimated overall survival was 83.2% ($p < 0.001$). In subgroup analyses (clinical stage, gender, incidental cancer, symptomatic cancer, and preoperative positive or negative C-reactive protein), the overall survival by life expectancy was significantly higher than the actual estimated overall survival. By way of exception, female patients with T1N0M0V0, incidental cancer and negative C-reactive protein showed marginal difference of overall survival between the life expectancy and the actual estimated overall survival ($p = 0.059$).

Conclusions: Overall the actual estimated overall survival for those who underwent radical nephrectomy for renal cell carcinoma was significantly lower than the life expectancy for them. Female patient with low stage, incidental cancer and preoperative negative C-reactive protein can expect a similar life expectancy of generation.