

ORIGINAL ARTICLE

Histopathological Studies in T1c Prostate Cancer after Intermittent Androgen Suppression – Can Radical Prostatectomy Be Avoided? –

Hitomi Kanno¹⁾, Masaoki Harada²⁾, Sadahito Kuwao³⁾,
Hisashi Hasumi⁴⁾, Hiroji Uemura⁴⁾ and Kazumi Noguchi⁵⁾

¹⁾ Department of Urology, Toshiba Rinkan Hospital, ²⁾ Department of Pathology, Kanagawa Cancer Center,

³⁾ Department of Pathology, Higashiyamato Hospital, ⁴⁾ Department of Urology, Yokohama City University Graduate School of Medicine,

⁵⁾ Department of Urology, Yokohama City University Medical Center, Kanagawa, Japan

Abstract

Purpose: To clarify the clinical and pathological effect of intermittent androgen suppression (MAB or LHRH agonist only) on T1c prostate cancer.

Materials and Methods: Twenty-one men with T1c prostate cancer received intermittent androgen suppression with the aim of avoiding radical prostatectomy. Pathological findings of repeated biopsies (5 ± 2 times) and radical prostatectomy specimens (from 13 patients who underwent radical prostatectomy 5.1 ± 1.7 years later) were investigated.

Results: No cancer cells were seen on repeat biopsy in any of 21 subjects after 9 ± 4 months treatment. Eight of the 21 (38%) remained cancer-free for 7.6 years after interrupting treatment (cancer-free group; total treatment, 30 ± 24 months). In 13 subjects (62%), cancer re-growth was found on repeat biopsy after 19 ± 10 months treatment and 31 ± 13 months off-treatment (re-growth group). Of these 13, 4 rejected radical prostatectomy and received intermittent androgen suppression again. No cancer cells were confirmed on repeat biopsy after 8 ± 3 months treatment, but cancer re-growth was again seen after 14 ± 6 months treatment and 13 ± 6 months off-treatment; cancer-free period was significantly ($p < 0.05$) shorter after the second treatment than the first (25 ± 11 vs. 13 ± 6 months). Gleason score was significantly ($p < 0.01$) higher for re-grown cancers than for initial cancers in the re-growth group. Finally, 13 patients in the re-growth group underwent radical prostatectomy (pT2, 12/13; pT3a, 1/13). Although surgical margin was negative in all patients, prostate-specific antigen failure was observed in 3 (23%) of 13 patients.

Conclusions: There is an increased risk of high-grade cancer re-growth after intermittent androgen suppression in some T1c prostate cancer patients.

Key words: prostatic neoplasms, androgen antagonists, biopsy, prostatectomy