IPD03: WEEKLY-DOCETAXEL CHEMOTHERAPY FOR TAIWANESE PATIENTS WITH METASTATIC CASTRATE-RESISTANT PROSTATE CANCER

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Purpose: Based on the tax 327 phase iii trial, docetaxel-based chemotherapy is the standard first-line treatment for castration-resistant prostate cancer (CRPC); however, there is some heterogeneity in the use of this agent in routine clinical practice. The aim of the present study was to examine the patterns of docetaxel use in routine clinical practice at our institution and to compare them with docetaxel use in the tax 327 clinical trial.

Materials and Methods: We reviewed charts of all metastatic CRPC patients treated with docetaxel 30 mg/m2 weekly for 2 weeks out of 3 and daily prednisolone 5 mg twice daily between January 2006 and February 2014 in Tri-service general hospital.

Results: In the first-line setting, 19 patients with CRPC received docetaxel. The main reasons for initiating docetaxel were rising prostate-specific antigen (98%) and progressive symptoms (77%) and patients received a median of 4 cycles of treatment. The median follow-up period from starting chemotherapy was 27.9 months (range: 5.4-67.2 months). The PSA response rate was 47.3%. Median survival was 15.7 months. The main toxicities were anemia (57%) fatigue (26%) and neuropathy (10%) but grade 3 to 4 adverse event only happened in two patients (one is neutropenia and another one is anemia). Initial PSA < 100 ng/mL, duration of hormone therapy>12 months, patients receive re-challenge and higher accumulation dose of DTX were associated with good prognosis.

Conclusion: In conclusion, we suggested that for Taiwanese mCRPC patients, DTX 30 mg/m2 weekly for 2 weeks out of 3 is an efficient regimen with low GR 3 or 4 hematological adverse effect. But proper timing and duration of DTX therapy for Taiwanese is still uncertain and further research is needed.

IPD04: PROGNOSTIC VALUE OF NEUTROPHIL-TO-LYMPHOCYTE RATIO AND ESTABLISHMENT OF NOVEL RISK STRATIFICATION MODEL IN CASTRATION-RESISTANT PROSTATE CANCER PATIENTS TREATED WITH DOCETAXEL CHEMOTHERAPY

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Purpose: Docetaxel (DTX) therapy is the standard treatment for castration-resistant prostate cancer (CRPC). The present study was undertaken to investigate independent prognostic factors and develop a stratification model of survival in CRPC patients treated with DTX therapy.

Materials and Methods: The present study included 101 CRPC patients treated with DTX therapy from December 2003 to October 2013 in a single institution. We used the combination of docetaxel (DTX), estramustine phosphate (EMP) and hydrocortisone every 3 weeks. Associations of clinical factors with survival were analyzed using univariate and multivariate analyses.

Results: The average number of treatment courses was 11. Median overall survival (OS) time was 21 months. In univariate analyses, patients with pain, impaired performance status, hemoglobin (Hb) < 11 mg/dl, neutrophil-to-lymphocyte ratio (NLR) > 2.6, lactate dehydrogenase > 230 IU/L, PSA (at the initiation of DTX therapy) > 110 ng/ml, alkaline phosphatase > 650 IU/L and C-reactive protein (CRP) > 2 mg/dl showed significantly lower survival rates than their respective counterparts. On the other hand, bone metastasis, age, PSA doubling time and lymph node metastasis were not significantly associated with OS. Multivariate analysis showed that presence of pain (hazard ratio [HR] 3.60, p < 0.001), CRP > 2 mg/dl (HR 3.49, p = 0.002), impaired performance status (HR 2.75, p = 0.004), Hb < 11 mg/dl (HR 1.93, p = 0.021), and NLR > 2.6 (HR 1.98, p = 0.031) were independent predictors of OS. Using these 5 statistically significant variables, patients were stratified into 3 risk groups: low (RR = 1 – 3.60), intermediate (3.82 – 34.55), and high (34.68 – 132.03). The differences among the three groups were statistically significant.

Conclusion: Elevation of NLR was an independent prognostic factor as well as elevated CRP, impaired performance status and low Hb and the combination of these factors can stratify OS risks in CRPC patients treated with DTX therapy. Our risk stratification model may be useful to identify patients with poor prognosis, who might be good candidates for innovative treatment.

IPD05: BONE MINERAL DENSITY LOSS ON LONG-TERM ANDROGEN-DEPRIVATION THERAPY (ADT) FOR THE PROSTATE CANCER PATIENTS IN JAPAN

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Purpose: There are only few reports about bone mineral density loss on long-term androgen-deprivation therapy (ADT) for the prostate cancer patients in Japan. We measured bone mineral density (BMD) of the prostate cancer patients who were undergoing ADT.

Materials and Methods: A retrospective study was performed to measure bone mineral density (BMD) of 76 prostate cancer patients who underwent ADT from 2004 to 20 in Showa University Hospital. BMD, Young Adult Mean (YAM), T score and Z score were assessed every year. We excluded patients with bone metastases. The patients were followed for at least one year and for at most five years. We measured bone density of three parts (lumbar spine, total hip, distal radius).

Results: BMD in three parts were decreased after the start of ADT. Z score decreased in the same way. BMD decreased in lumbar spine and total hip after initial three-year period, but loss of BMD stopped after three years. Distal radius BMD decreased at five years later.

Conclusion: It was shown that lumbar spine and total hip are influenced by degenerative change in Dual energy X-ray absorptiometer. So, it may be thought that distal radius was suitable for an evaluation of BMD of the patient who underwent long-term ADT for the prostate cancer.

IPD06: CHARACTERISTICS OF ARSENIC-RELATED BLADDER CANCER: A STUDY FROM NATIONWIDE CANCER REGISTRY DATABASE IN TAIWAN

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Purpose: To investigate the clinical and pathological characteristics of arsenic-related bladder cancer.

Materials and Methods: From 2008 through 2011, 7699 patients with bladder cancer were extracted from Taiwan Cancer Registry Database. According to birth residency codes, the patients were further divided into 3 areas, including the core zone (CZ) (arsenic endemic area with a well water arsenic level of 350 to 1,100 ng/ml), zone 1 (Z1) (a well water arsenic level of 350 ng/ml or greater but not a blackfoot disease endemic area) and zone 2 (Z2) (a well water arsenic level of less than 350 ng/ml). Clinico-pathological characteristics and survival outcome were compared among the groups.

Results: In this cohort, 119 (1.5%), 1145 (14.9%) and 6435 (83.6%) patients were born in the core zone, and zones 1 and 2, respectively. CZ patients had more high grade (80.9%, 69.0%, 63.0%) and high stage (stage II-IV: 52.8%, 38.1%, and 31.8%) tumors compared to Z1 and Z2 patients. Radical cystectomy was infrequently performed in stage II (19.6%) and III (25.2%) bladder cancer patients in Taiwan. CZ patients had significantly shorter overall and cancer-specific survival duration than did Z1 and Z2 patients. Old age, female gender, higher grade, higher stage, and higher arsenic levels were associated with both poorer overall and cancer-specific survival in the multivariate analysis of Cox-proportional model.

Conclusion: Patients with arsenic related bladder cancer may have poorer tumor characteristics and decreased overall and cancer specific survival in Taiwan.