METHODS: Patients with CRPC and bone metastases who completed 6 initial Ra-223 inj with no disease progression in bone and later progressed were eligible for Ra-223 re-tx (up to 6 additional Ra-223 inj), provided that hematologic parameters were adequate. No concomitant cytotoxic agents were allowed; other concomitant agents (eg, abiraterone and enzalutamide) were allowed at investigator discretion. The primary objective was safety. Exploratory objectives included time to radiographic bone progression, radiographic progression-free survival (rPFS), time to total alkaline phosphatase (tALP) and prostate-specific antigen (PSA) progression, overall survival (OS), and time to first symptomatic skeletal event (SSE), all calculated from start of re-tx. The safety evaluation and exploratory objectives included an active 2-year follow-up. Safety results from the active follow-up period and updated efficacy are reported.

RESULTS: 44 patients were re-treated with Ra-223; 29 (66%) completed all 6 inj (median number inj = 6). 34 (77%) of 44 patients entered active follow-up, during which no new safety concerns were noted. One new primary malignancy was reported (basal cell carcinoma; not considered related to study drug). There were no serious drug-related adverse events. 19 (43%) of 44 patients had an rPFS event (radiographic progression or death); median rPFS was 9.9 months. Only 5 (11%) of 44 patients had radiographic bone progression; median time to radiographic bone progression was not reached. Median time to TALP progression was not reached, median time to PSA progression was 2.2 months. Median OS was 24.4 months. Median time to first SSE was 16.7 months.

CONCLUSIONS: Re-treating patients with Ra-223 was well tolerated in this select population, led to minimal hematologic toxicity, and provided continued disease control in bone at the 2-year follow-up. Source of Funding: Bayer HealthCare Pharmaceuticals

MP52-05
PROGNOSTIC NUTRITIONAL INDEX PREDICTS PRIMARY RESISTANCE TO TREATMENT AND PROGNOSIS IN METASTATIC CASTRATION-RESISTANT PROSTATE CANCER PATIENTS TREATED WITH ABLRERATONE
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INTRODUCTION AND OBJECTIVES: Debate exists in regarding whether the observed PSA decline is a true surrogate for overall survival(OS) in patients with mCRPC. In addition, PSA flare phenomenon during Abiraterone (AA) treatment, which consists of an early and transient rise in the PSA level followed by a decline, had been reported by several previous studies. So only PSA monitoring seems to be not reliable for evaluating the response to AA treatment of mCRPC patients. prognostic nutritional index (PNI), which is calculated on the basis of serum albumin levels and peripheral lymphocyte counts, may represent the nutritional and immunological status which could affect the survival rate of patients. Owing to this, higher baseline PNI level and PNI level elevation during AA treatment might indicate response to treatment and good clinical outcome of mCRPC. So we determined if PNI and its variation could predict initial resistance to treatment and prognosis in metastatic castration-resistant prostate cancer (mCRPC) patients treated with AA.

METHODS: 112 chemotherapy pretreated or chemotherapy-naïve patients were scheduled for systemic treatment with AA. PNI levels were measured before and after one month of AA treatment. Univariate and multivariate logistic regression analyses were used to identify predictive factors of initial response to AA treatment. Univariable and multivariable Cox regression analyses were performed to determine prognostic factors that were associated with PSA progression-free survival (PSA-PFS), radiographic PFS (rPFS) and OS. The Harrell concordance index with variables only or combined PNI data were used to evaluate the prognostic accuracy.

RESULTS: 81(72.3%) of 112 patients showed initial response to AA treatment, in which 15 experienced PSA flare during AA treatment. In multivariate logistic regression analyses, high baseline PNI level, PSA level decrease during the first month of AA treatment and PNI level elevation during the first month of AA treatment were significantly correlated with initial response to AA treatment. In multivariate Cox regression analysis, low PNI level remained significant predictors of OS, rPFS and PSA-PFS. The estimated c-index of the multivariable model for OS increased from 0.82 without PNI to 0.83 when PNI added. CONCLUSIONS: Independent of PSA level variation, PNI level elevation during the first month of AA treatment and high baseline PNI level were significantly correlated with initial response to AA treatment. In addition, low pretreatment PNI level is a negative independent prognosticator of survival outcomes in mCRPC treated with AA and also increases the accuracy of established prognostic model.

Source of Funding: none

MP52-06
SERUM LIPID PROFILE CANNOT IMPROVE AFTER WITHDRAWAL OF ANDROGEN DEPRIVATION THERAPY IN PATIENTS WITH PROSTATE CANCER DESPITE THE RECOVERY OF SERUM TESTOSTERONE: IS THE CARDIOVASCULAR RISK STILL REMAINING?
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INTRODUCTION AND OBJECTIVES: Many adverse events of androgen deprivation therapy (ADT) have recently been studied. Especially, some studies showed serum lipid profile changes increases the risk for cardiovascular disease (CVD). On the other hand, it is not clear whether dyslipidemia will recover after discontinuing ADT. The aim of this study was to investigate the association between dyslipidemia and the duration required for the improvement in patients who have undergone ADT.

METHODS: A prospective study assessed the changes of serum lipid profiles and testosterone levels before and after ADT using clinical laboratory variables among 79 prostate cancer (PC) patients. The patients were divided into two groups that received either 12-month continuous ADT (Group1, n=69) or the initial 6-month continuous ADT and stopped it for the last 6 months due to radiation therapy (Group2, n=10).

RESULTS: At 6-month after the start of ADT, serum levels of total cholesterol, high-density lipoprotein cholesterol (HDL-C), and low-density lipoprotein cholesterol (LDL-C) increased significantly in both groups (Figure 1). Additionally, at 12-month after ADT, there was no significant difference other than testosterone (Table1: 0.21 ng/ml in Group1 versus 2.38 ng/ml in Group2; p = 0.001).

CONCLUSIONS: Dyslipidemia caused by ADT does not improve in Group2 patients within 6-month of follow-up after withdrawal of ADT. Clinician should pay attention to serum lipid profiles in PC patients for a long-term follow-up, even if ADT is stopped.
MP52-07
WHICH PATIENTS SHOULD BE STILL CONSIDERED FOR LATE SALVAGE RADIOTHERAPY FOR RISING OR PERSISTENTLY ELEVATED PSA AFTER RADICAL PROSTATECTOMY? RESULTS FROM A LARGE MULTI-INSTITUTIONAL STUDY
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INTRODUCTION AND OBJECTIVES: Early administration of salvage radiation therapy (SRT) showed better outcomes compared to patients treated at higher PSA levels. However, some patients may still respond to SRT even when PSA is higher. Nevertheless, it is currently unknown which of these patients may be still considered for late SRT, both in case of recurrent disease or persistently elevated PSA after surgery. We aimed at identifying optimal candidates for SRT among patients with PSA >0.5 ng/ml after RP.

METHODS: The study included 537 patients who received SRT at PSA level >0.5 ng/ml. All patients received local radiation to the prostate and seminal vesicle bed at seven tertiary referral centres, whereas the irradiation of the pelvic lymph nodes area (WPRT) and the concomitant hormonal therapy (HT) administration was left at the discretion of the treating physician. The study outcome was clinical recurrence (CR) after SRT that was identified by imaging. Multivariable Cox regression analysis was used to identify significant predictors of CR.

RESULTS: Overall, 475 (88%) patients received SRT for PSA rising during follow-up after RP, whereas 62 (12%) patients were treated for PSA persistence after surgery. Median PSA level at SRT was 1.0 ng/ml (IQR: 0.7, 1.7). At a median follow-up of 72 months, 102 (19%) patients developed CR. At multivariable analysis, pT stage /pT3b (HR: 4.91, p<0.0001), pathologic Gleason /pT3b (HR: 4.91, p<0.0001), pathologic Gleason ≥/pT3b (HR: 2.36, p=0.014), PSA level at SRT (HR: 1.22, p=0.0017), time from RP to RT (HR: 0.99, p=0.048), WPRT administration (HR: 0.45, p=0.031) and concomitant HT (HR: 0.48, p=0.017) were significant predictors of CR. When the multivariable risk of CR was plotted against PSA level at SRT, a linear relationship was observed initially, but reached a plateau at 3.0 ng/ml (for patients with PSA rising after RP), and at 2.0 ng/ml (for patients with PSA persistence after RP) (Figure 1).

CONCLUSIONS: In patients with PSA level >0.5 ng/ml, SRT was noted to be associated with better outcomes when administered at PSA <3.0 ng/ml (for patients with PSA rising after RP), and at PSA <2.0 ng/ml (for patients with PSA persistence after RP). When PSA level exceeds these values, SRT did not show a clear benefit.

Source of Funding: none

MP52-08
ONCOLOGICAL OUTCOMES, SURGICAL SAFETY AND COMPLICATIONS OF PATIENTS TREATED WITH SPOT SPECIFIC SALVAGE LYMPHNODE DISSECTION (SLND) FOR POSITRON-EMISSION TOMOGRAPHY (PET) POSITIVE PROSTATE CANCER (PCA) RELAPSE
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INTRODUCTION AND OBJECTIVES: The therapeutic role and extent of sLND in patients (pts) with nodal PET/CT positive relapse after primary treatment for PCa is unclear. Surgery is claimed to be safe and easy justifying the approach in spite of unclear oncological benefit. Therefore we report onco- logical outcome and intra- and postoperative complications in a series of spot-specific sLND.

METHODS: From 2009 to 2017, 46 consecutive pts with nodal PET/CT positive relapse after primary treatment for PCa were included. All pts underwent spot-specific sLND. To report on surgical outcome and complications median and interquartile ranges, frequencies and proportions were reported for continuous and categorical variables.

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