

The demographic and clinicopathological baseline characteristics of metastatic prostate cancer patients.

Urine retention and bone aches were the most frequent presenting complaints. Most of cases (42.8%) had good performance status (ECOG I), although Gleason scoring was 8-10 in (61.8%) and PSA > 100 in (65.7%).

		Count	%	Control	Treated
Total		70	100%	30	40
Age groups	<65 years	22	31.4%	8	14
	65-75 years	42	60.0%	18	24
	>75 years	6	8.6%	4	2
Baseline PSA	<10	2	2.9%	2	0
	=10.1- 20	4	5.7%	0	4
	=20.1- 40	10	14.3%	2	8
	=40.1- 99	8	11.4%	6	2
	>100	46	65.7%	20	26
Bone metastasis	Negative	6	8.6%	2	4
	Positive	64	91.4%	28	36
Lung metastasis	Negative	50	71.4%	34	26
	Positive	20	28.6%	6	14
Palliative radiotherapy	Negative	16	22.9%	6	10
	Positive	54	77.1%	24	30
Family history	Negative	60	85.7%	24	36
	Positive	10	14.3%	6	4
Comorbidities	Negative	38	54.3%	20	18
	Positive	32	45.7%	10	22
Hypertension	Negative	48	68.6%	20	28
	Positive	22	31.4%	10	12
DM	Negative	52	74.3%	24	28
	Positive	18	25.7%	6	12
Cardiac	Negative	60	85.7%	28	32
	Positive	10	14.3%	2	8
Smoking	Negative	12	17.1%	4	8
	Positive	58	82.9%	26	32
Gleason scoring	≤7	28	40 %	12	16
	=8-10	42	60 %	18	24
Bone pain	Mild to moderate	36	51.4%	14	22

grading	Severe	34	48.6%	16	18
Baseline ALP	44-147 IU/L (normal)	22	31.4%	8	14
	> 147 (high)	48	68.6%	22	26
Performance status	1	30	42.80%	13	17
	2	20	28.57%	9	11
	3	14	20.00%	6	8
	4	6	8.57 %	2	4
Baseline LDL	<100 mg/dl (normal)	16	22.86 %	8	8
	>100 mg/dl (high)	54	77.14 %	22	32
Baseline TG	<150 mg/dl (normal)	28	40.0%	12	16
	> 150 (high)	42	60.0%	18	24
Baseline cholesterol	<170 mg/dl (normal)	24	34.3%	10	14
	> 170 (high)	46	65.7%	20	26
Baseline HDL	>45 mg/dl (normal)	40	57.1%	20	24
	< 45 (low)	30	42.8%	10	16
Status	Alive	52	74.3%	19 (63.4 %)	33 (82.5 %)
	Dead	18	25.7%	11(36.6 %)	7 (17.5 %)
Response	Regression	48	68.6%	20 (66%)	28(70%)
	Progression	22	31.4%	10 (33%)	12 (30%)

Data are presented as count and percentage of 70 metastatic prostate cancer patients as well as count of 30 control and 40 treated cases.

The changes in the levels of lipid profile and of lipid metabolism-related proteins

A significant difference was noticed between the 2 groups after 6 months of castration.

The changes in the levels of PSA, Caveolin-1 and EGFR

The median levels of PSA, Caveolin-1 and EGFR showed marked and significant change as compared to the baseline level in both groups.

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The associations of baseline levels of lipid profile markers (LDL, Cholesterol, TG and HDL with patient characteristics .

Higher median LDL, cholesterol and triglycerides levels were significantly associated with negative patients characteristics.

The associations of baseline levels of lipid metabolism related proteins (HMG-CoA reductase, ABCA-1, AKR 1C4 and SLDL RP1) with patient characteristics.

Significant associations were detected between the assessed lipid metabolism related proteins and different patients characteristics.

The Subgroup analysis of baseline protein levels of PSA, ALP, Caveolin-1 and EGFR with patient characteristics.

The median PSA, ALP, Caveolin-1 and EGFR levels were significantly associated with negative patients' characteristics.

Spearman correlation analysis between LDL and triglycerides and LDL with cholesterol .

Strong correlations were detected between LDL with TG and LDL with cholesterol.

The overall survival analysis of patients stratified according to their baseline levels of ALP, PSA, Caveolin 1, SLDL RP1 and response to treatment.

The overall survival (OS) was significantly different according to baseline levels of ALP, PSA, Caveolin 1, SLDL RP1 and response to treatment.

Hazard ratio for death

Hazard ratio for death was highest with: Gleason score, baseline PSA, ALP, Caveolin-1 and disease progression