ESMO GOOD SCIENCE BETTER MEDICINE BEST PRACTICE

European Society for Medical Oncology

ESMO Preceptorship Programme

Prostatic Cancer – Singapore – 15-15 December 2016

Dr. Sheeraz Ali

Fellow Medical Oncology

Shaukat Khanum Memorial Cancer Hospital & Research Centre Lahore

# High Grade Neuroendocrine tumor of Prostate with muscle and nodal met without osseous metastasis

***Survival > 3.5 years***

- 75 years old, retired senior executive
- Well controlled Diabetes for 12 years(On Insulin) presented in March 2013 with:

- LUTS and backache for last 6 months

- Clinical examination revealed palpable prostate with PSA of 197 ng/ml
- MRI: Large prostate tumor involving the left peripheral zone as well as extending to involve the central gland, is obviously a T3 abnormality with lobulated extra capsular extension towards the left with no significant pelvic sidewall lymphadenopathy.

- Underwent trans-rectal Biopsy from Right and Left lobe of prostate : Prostatic adenocarcinoma, Gleason's grade 4+4, score 8/10 and 70% tissue involved by tumor(High Risk)
- Staging Bone scan: Focal uptake in the D-8 vertebra appears to be degenerative in origin, with metastasis appears to be less likely.

- Staging MRI spine : Unremarkable

- Started on combined ADT in April 2013
- His follow up PSA in June 2013 dropped to 1.13

- His clinical course was complicated by multiple admissions due to hematuria, clot retention and UTI.
- Underwent Elective TURP and LN dissection in July 2013
- His Post Op course was complicated by hematuria and underwent cystoscopy, bladder wash out and cystodiathermy

- Histopathology: Neoplastic cells are present in nests and sheets. Individual cells are medium to large sized with hyperchromatic nuclei (salt and pepper like dispersed chromatin), scant cytoplasm and scattered mitoses. Tumour cells were positive for chromogranin +ve while negative for p63, 0/8 LN +ve

- Conclusion: High grade neuroendocrine carcinoma, tumor involving 70% of submitted tissue.

- Staging PET CT in Aug 2013: Enlarged FDG avid  periprostatic, left proximal external iliac, left and right common iliac lymph nodes (Left side 20mm with SUV of 3.4)
- Thick walled urinary bladder secondary to chronic bladder outflow obstruction

- Bone scan: Negative for Met

- Started on Carboplatin/etoposide
- Interim PET CT after 3 cycles (Oct 2013): Met CR
- Completed six cycles in Nov 2013
- Re-started on ADT and put on 3 monthly follow up

# May 2016

- Presented In May 2016 with generalized aches and pains, Oligouria/renal impairment, Left thigh pain with left LL DVT

- CT Scan in May 2016 showed  significant adenopathy above and below diaphragm which is seen encasing and infiltrating the adjacent structures with extension into intervertebral foramina at L4/L5 level

- CT guided trucut Biopsy : Left Para aortic Node: HP: Met neuroendocrine tumour of prostate
- US KUB: Moderate Hydropnephosis

- MRI Spine: Multiple marrow signal changes, with para-aortic/paravertebral nodal soft tissue. Moderate to severe spinal canal stenosis due to posterior element degeneration at L4/L5- no cord or cauda equina compression
- Bone marrow Exam: Normal

- MR Pelvis: 19 x 7 cm T2/T1 low intensity, heterogeneous soft tissue mass involving the left adductor magnus muscle with internal specs of fluid ; consistent with musculoskeletal metastasis rather than necrotizing fasciitis, associated extensive soft tissue edema around the lesion involving the superficial and deep inter-muscular septa along with scrotal edema and abnormal signal in the right thigh subcutaneous soft tissue and hamstring muscles as well.

- Palliative radiation of 20Gy/5# to the Para vertebral mass(for the radiculopathy ) and Left Thigh lesion given till 30th May 2016

- Underwent cystoscopy that revealed Bladder Neck stricture and undergone suprapubic catheterization
- Underwent transurethral bladder neck and prostate resection
- Planned for re-challenging carbo/Etopo with dose reduction after improvement in renal parameters

- His kidney functions didn't improved and started on renal replacement therapy
- After 3 sessions of HD, no significant improvement and underwent bilateral renal decompression by percutaneous nephrostomy
- His PS deteriorated to 3 and was advised for good supportive care
- He took 2 months to get PS-2 and started on 3 weekly Paclitaxel with 50% DR due to anticipated poor functional status and ongoing renal derangement
- Post 3 cycles of Taxol----- performance status again dropped to 3
- Restaging CT Scan showed

- Restaging scan:  Progressive disease in terms of interval progression in posterior mediastinal adenopathy, bilateral pleural effusion and perihepatic ascites with associated nodal disease in rectovesical recess

- Moreover, his PSA remained < 1 ng/ml since June 2013 todate.

# Issues

- High Grade Neuroendocrine tumor of Prostate with muscle , nodal met without osseous metastasis and Normal PSA with survival beyond 3 years
- Do the neuroendocrine should be treated as adeno??
- Further plan for this patient

  → Best supportive Care VS Clinical trial enrolment
- Is he the candidate for Abiraterone/cabazitaxel/Sipuleucil in the presence of neuroendocrine type.
- Any survival benefit with addition of Doxorubicin in this entity??
- Any role of targeted therapies in this subset ??