Small cell carcinoma of Prostate case

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Case

• 67M presented with urinary outflow symptoms 2005
• DRE - T2 prostate.
• PSA of 10.7
• TRUS biopsies Adenocarcinoma left lobe of the prostate
• Gleason score 3+4=7
• Treated with radical radiotherapy (prostate only) and neo-adjuvant ADT
- Regular f/u
- Biochemical failure
- PSA >40 in 2013 when ADT re-introduced
• December 2014
• PSA 1.6 on ADT

- Retroperitoneal para-aortic lymphadenopathy
- Right sided hydrenephrosis
- Sclerotic lesions in the SIJ
• Recent PSA was low given the extent of disease, so a new biopsy showed:
  - **Small cell carcinoma**
  - **IHC:** TTF1, synaptophysin & CD56 positive, polyclonal PSA negative, CK7 & CK20 negative
Management

• Palliative radiotherapy to L-Sacral region
• Nephrostomy for hydronephrosis
• Chemo – Carboplatin/Etoposide 1 cycle
• 10 days later - Tumour lysis syndrome, AKI and neutropenic sepsis
• Died despite maximal intervention
Transformation of prostate histology

• Theories:
  – 1: Initial NEPC not detected
  – 2: Transformation from multipotent prostatic progenitor or Neuroendocrine transdifferentiation¹
  – 3: Treatment-related neuro-endocrine cancer² (t-NEPC)

Future of prostate cancer management

• Suspect NEPC in rapidly progressing disease with low PSA
• Using more novel potent AR-targeted drugs earlier
  – t-NEPC may potentially increase
• Poor prognosis (OS < 12 months)
• Need effective diagnostic and treatment strategies
• Possible indication for future trials
Thank you

Any Questions?