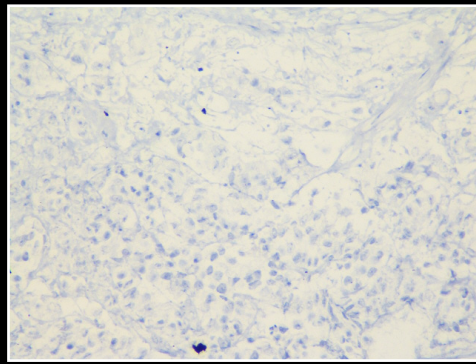
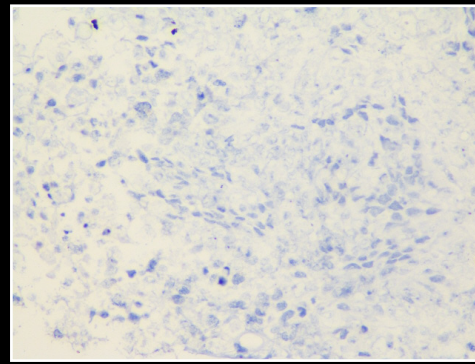


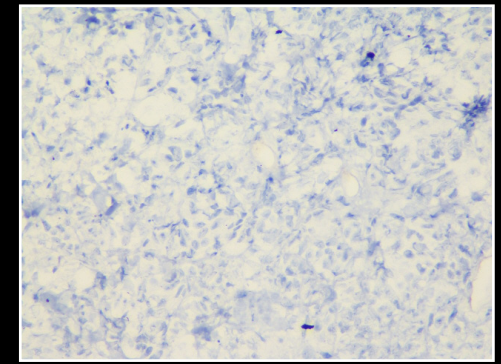
PSMA



PSA



GATA -3



AR

## FINAL DIAGNOSIS

Small Cell Neuroendocrine Carcinoma of the Prostate Gland.

## DISCUSSION

In the present case, based on the histomorphologic features, the following tumors fall into the differential diagnostic considerations: small cell neuroendocrine carcinoma of prostate, Gleason pattern 5 prostatic adenocarcinoma, usual prostate acinar or ductal adenocarcinoma with focal neuroendocrine differentiation, mixed or hybrid small cell neuroendocrine carcinoma - acinar adenocarcinoma, poorly differentiated urothelial carcinoma, and metastatic small cell neuroendocrine carcinoma. Absence of typical acinar differentiation argued against a usual prostatic adenocarcinoma with neuroendocrine features and mixed or hybrid small cell neuroendocrine carcinoma - acinar adenocarcinoma, and lack of typical nuclear features of prostatic carcinoma, made a Gleason pattern 5 prostatic adenocarcinoma highly unlikely. Furthermore, prostatic lineage-associated markers, such as PSA, PSMA, and AR were negative. Normal ultrasonographic imaging of the urinary bladder and negative staining for GATA3 excluded the possibility of a poorly differentiated urothelial carcinoma, invading the prostate gland. Absence of radiologically discernible mass lesion in other possible primary sites (e.g., lung and gastrointestinal tract) and negative staining for TTF1, CK20, and CK7 ruled out a metastatic small cell carcinoma. An ultrasonographic mass lesion in the prostate with positive immunoreexpression for neuroendocrine markers along with negative staining for cyclin D1 favored the rendered diagnosis in the index case.