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Occult Renal Cell Carcinoma Presenting as a Palpable Supraclavicular Virchow's Node

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Background

*Renal cancer is the 8th most common cancer in the US with Renal Cell Carcinoma (RCC) making up 85% of these cancers.
*Clear cell subtype makes up 85% of RCC and papillary subtype makes up 10-15% [1].
*RCC metastasizes in 25-30% of patients. 5 year survival is approximately 10% [2].
*Common sites of RCC metastases in decreasing frequency: lung (30-50%), mediastinum, bone, liver, kidney, retroperitoneum, and brain [3].
*Rudulf Virchow, M.D. identified Virchow's Node in 1848. It is the last lymph node in the supraclavicular chain located at the jugulo-subclavin junction where the thoracic duct enters venous circulation.
*Positive Virchow's node is concerning for abdominal cancer, most commonly gastric cancer.

Case Report

*A 71 year old male presented with altered mental status.
*CT imaging visualized a lingula mass with diffuse lymphadenopathy and lytic bone lesions
*Excisional biopsy of Virchow's node revealed Renal Cell Carcinoma Papillary Subtype
*CT imaging of the abdomen and pelvis showed no renal mass
*Due to the inability to lateralize the primary tumor a nephrectomy was not offered and metastatectomy was not feasible.
*The Patient was started on Nivolumab, Ipilmumab, and Denosumab and discharged home once his altered mental status resolved to be with his family.

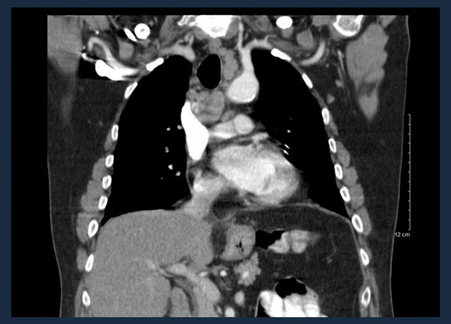

Figure 1: CT Thorax Showing Hilar Lymphadenopathy

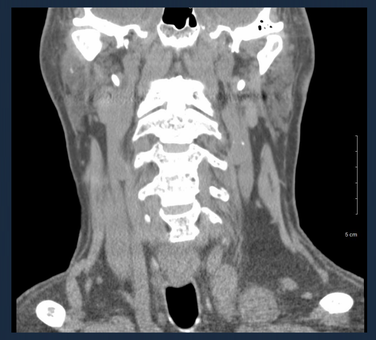

Figure 2: CT Cervical Spine Showing Diffuse Cervical and Supraclavicular Lymphadenopathy.

Pathology Results of Virchow Node Excisional Biopsy:
+: Pancytokeratin, PAX8, Vimentin, and CD10
-: CK7, CK20, TTF1, Napsin A, GATA3, PLAP, CD117, Glypican 3, NKX3.1, S100, and CD45

Findings suggestive of Renal Cell Carcinoma Papillary Subtype.

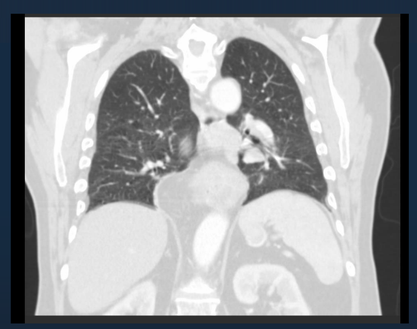

Figure 3: CT Thorax with IV Contrast Visualizing a Lingula Mass.

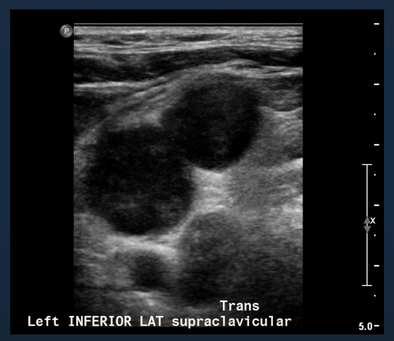

Figure 4: Ultra Sound Imaging of the Left Supraclavicular Lymphadenopathy.

CONCLUSION

Occult Renal Cell Carcinoma metastatic to Virchow's Node is a very rare presentation requiring a multidisciplinary team to keep the patient functional and symptoms controlled for as long as possible.
*Lateralized nephrectomy with complete metastastectomy compared with incomplete/ no metastastectomy increased survival by 40.8 months [4].
*CT Thorax and Abdomen/Pelvis with IV and PO contrast is the preferred imaging modality for identifying and monitoring RCC and metastasis.
*View thorax in arterial phase and abdomen/ pelvis in venous phase [2].
*Nivolumab (PD-1 inhibitor) and Ipilimumab (CTLA-4 activator) increases T cell activity allowing it to attack cancer cells
*Denosumab (RANKL inhibitor) inhibits osteoclast function, shown to be equal to superior of zoledronic acid (3rd generation bisphosphonate).

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