

PICTORIAL CME

Cerebral Venous Thrombosis in Papillary Carcinoma Thyroid

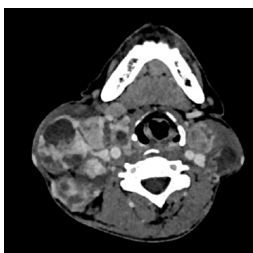
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Fig. 1: Post contrast axial and coronal reformation of CT Neck shows metastatic neck nodes of thyroid CA compressing right IJV

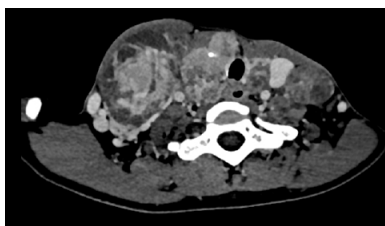


Fig. 2: Post contrast axial and coronal reformation of CT Neck shows metastatic neck nodes of thyroid CA compressing right IJV



Fig. 3: Post contrast axial and coronal reformation of CT Neck shows metastatic neck nodes of thyroid CA compressing right IJV



Fig. 4: MRI Brain showed thrombosis in superior sagittal sinus

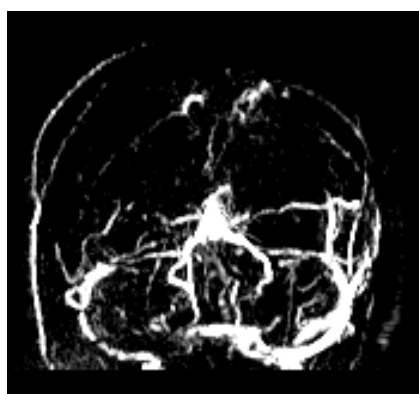


Fig. 5: MRV showed thrombosis in right transverse, sigmoid sinus and superior sagittal sinus

CVT is an uncommon and frequently unrecognized type of stroke that affects approximately 5 people per million annually and accounts for 0.5% to 1% of all strokes.¹ Predisposing causes of CVT are multiple. The risk factors for venous thrombosis in general are linked classically to the Virchow triad of stasis of the blood, changes in the vessel wall, and changes in the composition of the blood. Risk factors are usually divided into acquired risks (eg, surgery, trauma, pregnancy, puerperium, antiphospholipid syndrome, cancer, exogenous hormones) and genetic risks (inherited thrombophilia). In the ISCVT, 7.4% of cases of CVT were associated with cancer, particularly in patients with hematologic malignancies. Potential mechanisms for an association of

cancer with CVT include direct tumor compression, tumor invasion of cerebral sinuses, or the hypercoagulable state associated with cancer.^{3,4}

A 40 years old female was admitted in the emergency ward with history of serial seizures (GTCS), 6 episodes in the past 2 days. The patient was diagnosed to have papillary carcinoma of thyroid with neck nodal metastasis. Post contrast axial and coronal reformation of CT Neck shows metastatic neck nodes of thyroid ca compressing right IJV (Figures 1, 2, 3). She underwent total thyroidectomy with bilateral modified radical neck dissection in the

recent past. On examination patient's vitals were stable. Fundus examination showed bilateral papilledema. Patient was conscious, oriented and without any focal neurological deficits. She was evaluated with routine blood investigations including serum electrolytes, which were within normal limits. MRI Brain with MRV showed features suggestive of thrombosis in right transverse, sigmoid sinus and superior sagittal sinus thrombosis (Figures 4, 5). Diagnosis of cerebral venous thrombosis in papillary carcinoma thyroid with nodal metastasis was made. Patient was started on antiedema measures, antiepileptics and low molecular weight heparin. Seizures controlled. Patient was discharged on oral anticoagulants with monitoring of coagulation parameters. His thrombophilic and vasculitic workup was negative.

The possible mechanisms by which cerebral venous thrombosis in papillary carcinoma thyroid with nodal metastasis are thrombus formation due to venous stasis following occlusion of internal jugular vein by neck nodes, prothrombotic state associated with malignancies and direct invasion by the the tumour.^{2,5} Hypercoagulability is a well known paraneoplastic

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syndrome associated with several solid and hematologic malignancies.^{1,6} Classically, tumors of the endocrine system have not been associated with hypercoagulability states. We present a patient who developed a coagulopathy in the setting of papillary carcinoma of thyroid.

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