

Choroid Plexus Metastasis of Papillary Thyroid Carcinoma Complicated by Intraventricular Hemorrhage

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Abstract

We present a rare case of a lateral ventricle choroid plexus metastasis arising from thyroid carcinoma in a 72-year-old man in addition to intraventricular hemorrhage. Computed tomography revealed acute hydrocephalus as a result of the hemorrhage, with a large intra-ventricular mass.

Keywords: Brain Metastasis; Intraventricular Tumor; Choroid Plexus; Papillary Thyroid Carcinoma

Abbreviations

PTC: Papillary Thyroid Carcinoma; CPM: Choroid Plexus Metastasis

Comment

We report the case of a 71 years-old man presented with one month history of headache, nausea, vomiting and speech disturbance. Neurologic examination revealed a Glasgow coma scale score of 11 points (E4, V1, M6), right hemiparesis and severe speech disturbance mimicking Wernicke aphasia. He had a history of papillary thyroid carcinoma diagnosed three years ago, and underwent complete thyroidectomy. CT of the head depicted a well-circumscribed mass in left lateral ventricle that homogenously enhanced after contrast administration with hydrocephalus and intraventricular bleeding (Figure 1).

Choroid plexus metastasis from papillary thyroid carcinoma (PTC) as extra cranial tumors is an uncommon and rare event with only few recorded cases in the literature.

PTC typically disseminates through the lymphatic system, hematogenous spread is not unusual. The frequency of distant metastases at the time of diagnosis varies from 0.8% to 8.7% [1]. The most prevalent locations are the lung (43%), followed by the bone (33%) and brain metastasis is uncommon, occurring only in 0.9% to 1.5% of thyroid carcinomas [1,2].

The most prevalent neurological symptom in these cases is headache or consciousness disruption induced by elevated intracranial pressure along with the intratumoral hemorrhage which may be the first symptom of thyroid cancer, due to the disease's known predisposition for bleeding [3].

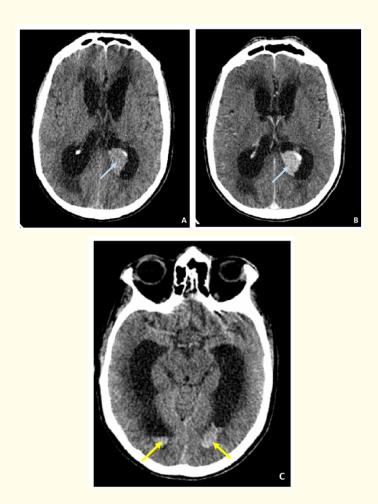


Figure 1: Axial of CT scan of head before (A) and after enhancement (B and C) revealing a well-circumscribed mass in left lateral ventricle that homogenously enhanced (blue arrows) with hydrocephalus and intraventricular bleeding (yellow arrows).

Because of the limited number of documented cases of intraventricular metastases there is no established treatment procedure. For intraventricular metastases that originate from thyroid cancer, non-surgical treatments such as whole-brain radiation therapy and radioiodine therapy are options, and the combination of surgical and non-surgical treatments is believed to lead to better survival outcomes [4].

Conflict of Interest

Declare if any financial interest or any conflict of interest exists.

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