

Skull metastasis from follicular thyroid cancer

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Abstract

Differentiated thyroid cancers have indolent clinical course and good prognosis with an approximate 85–90% 10-year survival rate. Distant metastases from follicular thyroid cancer are uncommon but are one of the main causes of cancer-specific mortality. Mainly involve the lung, bone, and brain. Bone metastasis most commonly occurs in the vertebrae, costas and hip bones. Metastasis of a follicular thyroid carcinoma to the skull is very rare and only a small number of reports are found in the literature. We present a case of solitary lytic skull metastasis of a follicular thyroid cancer in a 79-year-old woman. The patient presented with a painless mass on the right side of the head. Physical examination showed a large, palpable, immobile and hard tumor. CT scan showed thyroid enlargement along with neck lymphadenopathy and a lesion with an osteolytic component in the right parietal area. The patient was euthyroid and we performed an initial biopsy excision. The histopathological examination revealed a well-differentiated follicular thyroid cancer metastasis. After that a total thyroidectomy was subsequently performed. The patient refused the craniectomy and was given thyroid-stimulating hormone (TSH) suppression therapy followed by whole body iodine-131 (I131) internal radiation. She gave up on therapy and died 20 months after the initial surgery. Management of metastatic thyroid cancer, requires a multidisciplinary approach and multimodality treatment. Distant metastases should be surgically removed whenever possible, providing the best chance to prolong patient survival. Radiotherapy should be reserved for inoperable and residual tumor cases.

KeyWords: *osteolytic skull metastasis, follicular thyroid cancer*

Clinical Image

Differentiated thyroid cancers have indolent clinical course and good prognosis with an approximate 85–90% 10-year survival rate. Distant metastases from follicular thyroid cancer are uncommon but are one of the main causes of cancer-specific mortality. Mainly involve the lung, bone, and brain. Bone metastasis most commonly occurs in the vertebrae, costas and hip bones. Metastasis of a follicular thyroid carcinoma to the skull is very rare and only a small number of reports are found in the literature. We present a case of solitary lytic skull metastasis of a follicular thyroid cancer in a 79-year-old woman. The patient presented with a painless mass on the right side of the head. Physical examination showed a large, palpable, immobile and hard tumor. CT scan showed thyroid enlargement along with neck lymphadenopathy and a lesion with an osteolytic component in the right parietal area (Fig.1). The patient was euthyroid and we performed an initial biopsy excision.

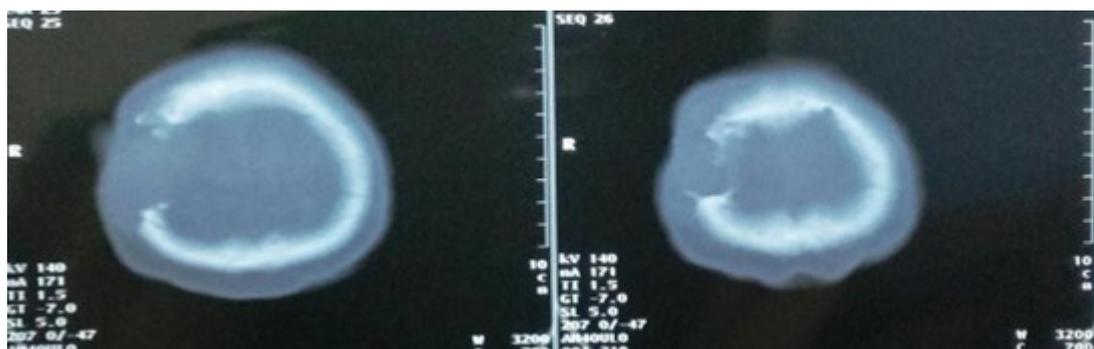
The histopathological examination revealed a well-differentiated follicular thyroid cancer metastasis (Fig.2). After that a total thyroidectomy was subsequently performed. The patient refused the craniectomy and was given thyroid-stimulating hormone (TSH) suppression therapy followed by whole body iodine-131 (I131) internal radiation. She gave up on therapy and died 20 months after the initial surgery. Management of metastatic thyroid cancer, requires a multidisciplinary approach and multimodality treatment. Distant metastases should be surgically removed whenever possible, providing the best chance to prolong patient survival. Radiotherapy should be reserved for inoperable and residual tumor cases.

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Figure 1A. Head CT scan demonstrated a skull metastasis of follicular thyroid carcinoma with osteolytic destructive features (7,5x5x4cm).



Figure 1BC. Head CT scan demonstrated a skull metastasis of follicular thyroid carcinoma with osteolytic destructive features (7,5x5x4cm).



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Figure 2A. Histological examination revealed the diagnosis of metastatic follicular thyroid cancer (HE x25).

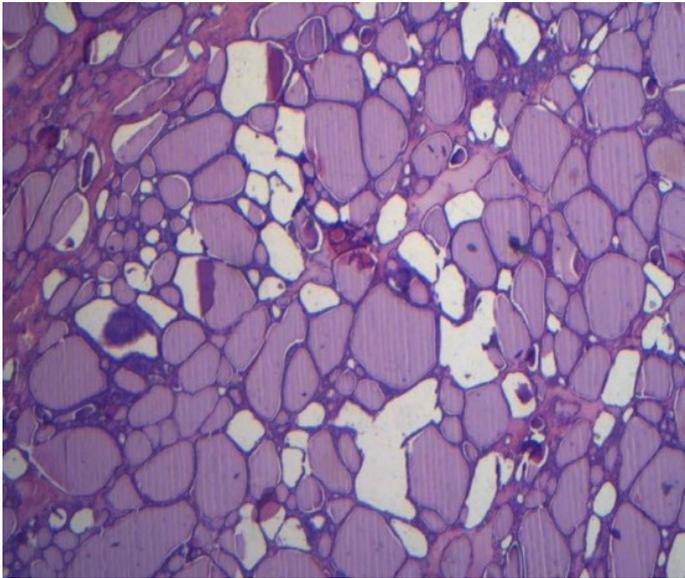
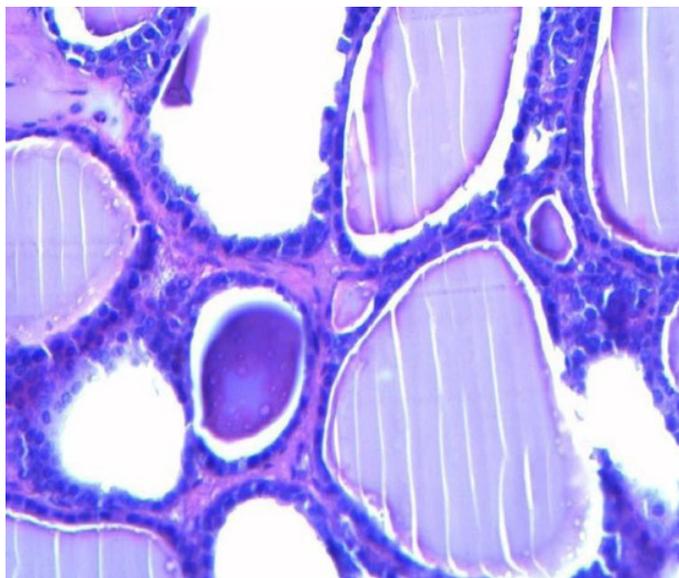


Figure 2B. Histological examination revealed the diagnosis of metastatic follicular thyroid cancer. Neoplastic follicles with colloid (HE x250).



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