Pituitary carcinoma

The term “metastatic PitNET” is advocated to replace the previous terminology “pituitary carcinoma” in order to avoid confusion with neuroendocrine carcinoma (a poorly differentiated epithelial neuroendocrine neoplasm). Subtypes of PitNETs that are associated with a high risk of adverse biology are emphasized within their cell lineage and cell type as well as based on clinical variables. Posterior lobe tumors, the family of pituicyte tumors, include the traditional pituicytoma, the oncocytic form (spindle cell oncocytoma), the granular cell form (granular cell tumor), and the ependymal type (sellar ependymoma). Although these historical terms are entrenched in the literature, they are nonspecific and confusing, such that oncocytic pituicytoma, granular cell pituicytoma, and ependymal pituicytoma are now proposed as more accurate. Tumors with hypothalamic neuronal differentiation are classified as gangliocytomas or neurocytomas based on large and small cell sizes, respectively. This classification sets the standard for a high degree of sophistication to allow individualized patient management approaches [1)]

Pituitary carcinoma is rare. However, an awareness of this diagnosis is important in patients with previously diagnosed pituitary neuroendocrine tumor who present with neurologic dysfunction or other signs of disseminated malignancy.

Constitutes less than 1% of patients with pituitary tumors [2) 3) 4)].

Aggressive pituitary tumors are characterized by invasion of the parasellar region including the cavernous sinus, bone, and subarachnoid space of the suprasellar region. The diagnosis of pituitary carcinoma usually requires evidence of either intracranial or extracranial metastases [5)].

Adrenocorticotropin secreting pituitary carcinoma is the most common secretory subtype which undergo malignant transformation [6) 7)].

see growth hormone carcinoma.

A 59-year-old male presented with a dural-based posterior fossa lesion. He had been diagnosed with a pituitary chromophobe adenoma 43 years earlier that was treated at the time with surgery and radiation therapy. A presumptive diagnosis of a radiation-induced meningioma was made and surgery was recommended. At surgery the tumour resembled a pituitary neuroendocrine tumor. Histopathology, laboratory findings, and the patient's medical history confirmed the final diagnosis of a prolactin-secreting pituitary carcinoma. To our knowledge, this is the longest reported interval between the pituitary neuroendocrine tumor and metastatic lesion diagnosis (43 years).

CONCLUSION: Management should be tailored to individual patient and may include a combination of treatments (surgery, radiation therapy, chemotherapy, and hormone-targeted therapy). Functionally active tumours may be monitored with hormone levels as tumour markers [8)].

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