A 53-year-old male patient has admitted with complaints of bilateral blurred vision, dizziness, polyuria, nocturia, severe fatigue and somnolence, decreased libido, and intermittent nausea and vomiting for more than 6 mo. During the last 7 d, the dizziness had worsened. Laboratory investigations revealed overall hypofunction of the pituitary gland, but the patient had an elevated serum prolactin level (703.35 mg/mL). Preoperative magnetic resonance imaging revealed a tumor in the sellar region, accompanied by intratumoral hemorrhage and calcification. Thus, transnasal subtotal resection of the lesion in the sellar region was performed. The histopathological and immunohistochemical examinations of the resected lesion revealed metastases of lung adenocarcinoma to the pituitary gland. Oral hydrocortisone (30 mg/d) and levothyroxine (25 mg/d) were given both pre-and postoperatively. Post-operatively, the clinical symptoms were significantly improved. However, 4 mo following the surgery, the patient succumbed due to multiple organ failures.

Hyperprolactinemia is one of the markers of poor prognosis in patients with carcinoma that metastasizes to the pituitary gland. Exogenous hormone supplementation plays a positive role in relieving the symptoms of patients and improving quality of life [1)].

A 65-year-old Caucasian woman with lethargy, loss of appetite and peripheral edema was found to have anterior hypopituitarism. Magnetic resonance imaging showed no mass lesions in the pituitary although a positron emission tomography scan showed abnormal pituitary activity. An abdominal computed tomography scan revealed multiple intra-abdominal lymph nodes, which on histology proved diagnostic of diffuse large B-cell non Hodgkin's lymphoma. She received six cycles of R-CHOP chemotherapy, after which she achieved a complete metabolic response at all known previous sites of the disease, confirmed by positron emission tomography scanning. Concomitant with the tumor response, there was full recovery of adrenal, thyroid and gonadal axes which has persisted at 10 months follow-up.

Conclusion: Although rare, it is important to recognize lymphomatous infiltration of the pituitary as a potentially reversible cause of hypopituitarism [2)]

---

two cases of malignant melanoma pathologically confirmed within the pituitary, both metastatic from a primary site on the chest wall. In each patient, transsphenoidal resection of the tumor was incomplete and each received local radiotherapy after surgery.

Results: One patient recurred quickly and developed brain metastases as well. He died four months after resection of the pituitary metastases, but the second patient survived six months without recurrence. As intrasellar metastases portends widespread systemic disease and may be synchronous with parenchymal brain metastases, survival in such patients is limited regardless of adjunctive therapy.

Conclusions: Such cases are likely to arise more commonly in future due to the increasing incidence of melanoma. Identifying them by imaging alone is difficult due to inconsistent signal characteristics on MRI (as shown by these cases) and the confusion introduced by any associated intratumoral hemorrhage [3)].

---

an unusual case of metastatic atypical bronchial carcinoid to the anterior pituitary gland in a 47-year-

old male who presented with bitemporal hemianopsia and hypopituitarism. His primary bronchial carcinoid was resected two years previously. Foci of metastatic papillary thyroid carcinoma were also identified in the lung resected for the bronchial carcinoid. He thereby underwent total thyroidectomy followed by radioiodine ablative treatment. Transsphenoidal partial removal of the suprasellar mass was performed, and atypical carcinoid metastases was identified. He received conventional fractionated sellar radiotherapy, which was supplemented with octreotide (Sandostatin LAR) injections following a positive pituitary uptake on octreotide scan. This treatment suppressed his elevated 5-HIAA urinary excretion to a normal level. His vision has returned to normal and the pituitary mass diminished in size [4)]

A 68-yr-old man, with no history of malignancy, presented with recent onset of hypopituitarism, mild diabetes insipidus, headaches, left oculomotor nerve palsy, and progressive bilateral deterioration of visual acuity and visual fields. Magnetic resonance imaging revealed a large sellar mass compressing the optic chiasm and invading the left cavernous sinus, whereas a prolactin elevation at 438.6 ng/ml (19.73 nmol/liter) was noted. Decompression of the sellar region was attempted, and pathology disclosed a metastatic hepatocellular carcinoma. On postoperative investigation, a primary liver tumor was identified and confirmed by biopsy. The patient improved transiently but died 3 months after diagnosis because of the deterioration of the liver disease. The relevant literature is reviewed in light of this unusual case, illustrating the problems in the diagnosis and management of patients with metastases to the pituitary [5)].

In 1990 Chiang et al. encountered three histologically confirmed pituitary metastases. Primary cancer had been diagnosed and treated previously in only one patient. In the remaining two a transsphenoidal operation provided the initial diagnosis of metastases, and the primary lesion was subsequently detected at autopsy in one. In two of the three patients symptoms and signs of pituitary dysfunction were the first manifestations of the malignant disease. The main symptoms and signs were impairment of visual acuity, visual field defect, headache, adenohypophyseal insufficency and diabetes insipidus. A sellar mass was demonstrated by CT or MRI in all patients. The tumours were all completely extirpated by subfrontal route in one case and transsphenoidally in the remaining two patients. Following surgery the presenting symptoms improved satisfactorily in all patients [6)].

1)
Liu CY, Wang YB, Zhu HQ, You JL, Liu Z, Zhang XF. Hyperprolactinemia due to pituitary metastases: A case report. World J Clin Cases. 2021 Jan 6;9(1):190-196. doi: 10.12998/wjcc.v9.i1.190. PMID: 33511184; PMCID: PMC7809681.
2)
Kenchaiah M, Hyer SL. Diffuse large B-cell non Hodgkin's lymphoma in a 65-year-old woman presenting with hypopituitarism and recovering after chemotherapy: a case report. J Med Case Rep. 2011 Oct 4;5:498. doi: 10.1186/1752-1947-5-498. PMID: 21970824; PMCID: PMC3197538.
3)
McCutcheon IE, Waguespack SG, Fuller GN, Couldwell WT. Metastatic melanoma to the pituitary gland. Can J Neurol Sci. 2007 Aug;34(3):322-7. doi: 10.1017/s0317167100006752. PMID: 17803030.
4)
Shimon I, Hadani M, Nass D, Zwas ST. Malignant bronchial carcinoid tumor metastatic to the pituitary in a thyroid carcinoma patient: successful treatment with surgery, radiotherapy and somatostatin analog. Pituitary. 2004;7(1):51-7. doi: 10.1023/b:pitu.0000044627.63261.b4. PMID: 15638299.
5)
Komninos J, Vlassopoulou V, Protopapa D, Korfias S, Kontogeorgos G, Sakas DE, Thalassinos NC.

Tumors metastatic to the pituitary gland: case report and literature review. J Clin Endocrinol Metab. 2004 Feb;89(2):574-80. doi: 10.1210/jc.2003-030395. PMID: 14764764.
6)
Chiang MF, Brock M, Patt S. Pituitary metastases. Neurochirurgia (Stuttg). 1990 Jul;33(4):127-31. doi: 10.1055/s-2008-1053571. PMID: 2203980.Chiang MF, Brock M, Patt S. Pituitary metastases. Neurochirurgia (Stuttg). 1990 Jul;33(4):127-31. doi: 10.1055/s-2008-1053571. PMID: 2203980.

From:
https://neurosurgerywiki.com/wiki/ - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=pituitary_metastases_case_reports

Last update: **2024/06/07 03:00**