Choriocarcinoma with metastatic brain lesions: A CASE REPORT

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Introduction

Choriocarcinoma is the most malignant tumor of gestational trophoblast origin. It is traditionally a curable neoplasm, though a metastatic brain lesion significantly worsens this prognosis. Here we describe a case of metastatic choriocarcinoma with brain lesions and the importance of its inclusion in the differential diagnosis of young men with testicular masses and neurological symptoms.

Case Presentation

A 28 year old Hispanic man with no previous medical history was transferred from an outside hospital secondary to initial evaluation showing intracranial mass with midline shift. He complained of worsening frontal headaches for four days prior to presentation. In addition, he had concurrent nausea and vomiting for three days which provided some temporary headache relief. He also reported a painless testicular mass which had increased in size over the last four months. The patient thought he had a hernia as he worked in construction and had not yet been evaluated by a physician.

Vital signs: BP 104/42 mmHg, Pulse 88 bpm, Temp 98.4 °F, Resp 16 /min, Ht. 5’ 6”, Wt 70.761 kg (156 lb) BMI 25.18 kg/m2 SpO2 100% on RA. Pertinent findings on physical exam included a 10 cm x 10 cm firm, non-tender left testicular mass. Gait abnormalities noted with a slight limp, dragged left foot. Visual field: 20/20 left eye, 20/40 right eye.

Peripheral field defect left lateral and lower visual fields. Right side peripheral field within normal limits. An MRI brain showed a single lesion 3.4 cm x 3.7 cm x 3.8cm with 12 mm midline shift. Initial testicular US showed 13.5 cm x 12.3 cm x 10.5 cm heterogenous hypoechoic testicular mass.

Further imaging with CT revealed multiple pulmonary metastases bilaterally and liver metastases. Initial beta-hCG and AFP were both significantly elevated.

Case Presentation Cont.

The patient had a craniotomy with resection of his brain metastases and pathology revealed a malignant neoplasm with features consistent with choriocarcinoma. He was diagnosed with a nonseminomatous germ cell tumor stage IIIC, poor risk.

The patient was started on chemotherapy with Bleomycin, Etoposide, and Cisplatin (BEP). His ECOG improved from 4 to 2-3 with physical therapy after his craniotomy. He was placed on allopurinol and TLS labs remained normal. Beta-hCG, AFP, LDH trended down significantly (beta-hCG 816,780 MIU/ML -->200,000 MIU/ML -->19,905 MIU/ML; AFP 397 NG/ML -->191 NG/ML -->32 NG/ML). An orchiectomy was scheduled to be done during a chemotherapy holiday, as his acute neurological issues during admission prevented this to be performed.

Case Presentation Cont.

CT brain with hemorhagic metastasis with surrounding edema


Further imaging with CT revealed multiple pulmonary metastases bilaterally and liver metastases. Initial beta-hCG and AFP were both significantly elevated.

Conclusion

Choriocarcinoma with metastatic brain lesions is traditionally indicative of a poor prognosis. However, if there is a high index of suspicion for this neoplasm, aggressive treatment with surgical intervention and advances in chemotheraphy and radiotherapy have increased the overall survival. Neurological symptoms in conjunction with a testicular mass should raise suspicion for this neoplasm with the possibility of metastatic disease.

References: