To Treat Or Not To Treat Poorly Differentiated Adenocarcinoma Of Unknown Origin

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Introduction

Cancer of unknown origin (CUO) is considered the eighth most common malignancy worldwide with adenocarcinoma accounting for 60% of these neoplasms (1, 2). Presenting symptoms depend on the site of metastasis, and in 75-80% of the cases, the primary tumor remains unidentified even after extensive workup (2). Due to the widespread metastasis at time of presentation, the prognosis is generally poor with a life expectancy of a median of six months (1). Despite the availability of various treatment protocols, this case presents that there is no specific protocol for the management and treatment of poorly differentiated adenocarcinoma of unknown origin and thus making holding treatment the best option.

Table 1

Classifications of cancer of unknown origin [1]

Types of cancer of unknown origin	Prevalence
Adenocarcinoma	60%
Undifferentiated carcinoma, poorly differentiated carcinoma, including poorly differentiated adenocarcinoma	30%
Squamous cell and/or transitional cell carcinoma	5%-8%
Neuroendocrine tumor	2%-4%

Case Presentation

A 34-year-old woman, previously treated for "alcohol-induced pancreatitis" three times in the prior month, was brought to the emergency department with sudden loss of consciousness, aphasia, and right-sided-weakness. MRI/MRA of the brain demonstrated acute thrombosis of the left middle cerebral artery, and punctate areas of acute ischemia bilaterally in the supra and infratentorial regions. Eight days later, doppler ultrasound demonstrated several DVTs in all extremities. CT scan of the abdomen and pelvis showed pancreatitis, wedge-shaped hypodensities in the spleen and kidneys concerning for infarction, ascites and pleural effusions. Echocardiogram revealed a 0.9cm x 0.6cm mass in the atrial side of the posterior mitral leaflet. Fluid analysis of her ascites and pleural effusion was positive for metastatic poorly differentiated adenocarcinoma. Immunostaining expressed moc-31, Ber-EP4, CK7, CK20 (subset), CDX2, lack CATA3 and PAX8. CA19-9 and CA-125 were elevated at 21,740 U/ml and 364 U/ml respectively. She developed spontaneous bacterial peritonitis, severe hydronephrosis, urinary tract infection, and heparin-induced thrombocytopenia.

Given the severity of her condition, oncology recommended against further treatment. Autoimmune and genetic testing was halted. She was discharged to hospice and died shortly thereafter.

Discussion

This case illustrates that although advances have been made with diagnosis and treatment of adenocarcinoma of unknown origin with targeted therapy as well as platinum-based chemotherapy [3], it is imperative to recognize that only a small subset of adenocarcinoma of unknown origin are responsive to current therapies and more research is required for the many cases that present with poorly differentiated adenocarcinoma and widespread metastasis.

References

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