An Anaplastic Carcinoma of Liver: A Possible Poorly Differentiated Primary Hepatic Cholangiocarcinoma

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We present an interesting case of undifferentiated carcinoma of liver with anaplastic features, thought to be a possible poorly differentiated primary hepatic cholangiocarcinoma (PDPHC). A 67-year-old man had recurrent diarrhea alternating with constipation and dark stool and urine for 1 month. Conjugated bilirubin, INR, CEA, and CA19-9 were elevated. CT scan revealed 2 separate liver masses (6.8 and 4 cm) in the right lobe, intrahepatic biliary ductal dilatation, and unremarkable extrahepatic biliary tree. Core biopsy revealed sheets of markedly atypical neoplastic cells with focal spindle cell differentiation, considerable acute inflammation, and fibrous stroma. Tumor cells were positive for AE1/3, CK19, polyclonal CEA, α1-antitrypsin, and CK7 (scattered positivity) but negative for CK20, EMA, desmin, S100, SMA, HepPar1, CD34, CD99, CD117, CA19-9, CD31, and factor VIII. Pathologists from the primary institute and hepatopathologists from a well-known referral institute interpreted this lesion as an anaplastic carcinoma morphologically, which did not resemble primary liver tumors phenotypically. Metastatic carcinoma was thought to be less likely as no clinical or radiologic evidence of tumor was identified in the rest of the body. Even though the tumor was multifocal and immunohistochemistry was not typical for cholangiocarcinoma, PDPHC was favored owing to CK19 and polyclonal CEA positivity, intrahepatic biliary ductal dilation, and obstructive jaundice in absence of pancreatic lesion. As these tumors were surgically unresectable, patient started chemotherapy for cholangiocarcinoma (eg Gemzar and cisplatin).

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