TO THE EDITOR

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The current issue of *Autopsy and Case Reports* (2013;3(1):5-14)[1] has an interesting report by Cavalcante et al. purporting to describe an additional case of "hepatoid carcinoma." Unfortunately, the case description does not fully satisfy the criteria for that diagnosis.

A number of relatively recent articles discuss hepatoid carcinomas.[2-7] In the reported case, at least one of the criteria for definitive identification of liver tissue has not been shown: (a) demonstration of albumin RNA by in-situ hybridization or immunohistochemistry on frozen tissue; (b) demonstration of a canalicular pattern with antibody directed against polyclonal CEA; and (c) demonstration of bilirubin production by tumor cells. Further, hepatocellular carcinoma, whether primary in the liver or arising in an ectopic site, is not typically mucin-producing, and keratinization is quite rare. The acinar pattern shown in Figures 5 and 6 is not seen in hepatocellular carcinoma, though Figure 7 certainly resembles hepatocellular carcinoma. Although the strong immunostaining for HepPar1 is suggestive, this immunostain is not unequivocally specific for liver cells as the authors note. The pattern of TTF-1 immunostaining in this case is also compatible with liver cells but can also be seen in some lung carcinomas.

This case might better be designated as a "pulmonary adenocarcinoma with hepatoid features" rather than being considered a true hepatoid carcinoma, unless albumin, canalicular pattern with pCEA, or bile production is demonstrated.

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