Osteoclast-Like Giant Cell Tumour of the Pancreas: An Undifferentiated Carcinoma of Duct Epithelial Origin

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Sir,

We read with great interest the case report of Nai et al. [1]. They describe a large tumour of the pancreatic head which is composed of atypical monomorphic cells, osteoclast-like giant cells, foci of mucinous adenocarcinoma and focal osteoid deposits. In contrast to the monomorphic cells, which exhibit cytological atypia and immunolabelling for epithelial markers and/or vimentin, the giant cells are described as devoid of cytological atypia and showing expression of LCA and macrophage markers CD68, HAM56 and lysozyme. Based on these observations the authors conclude that the tumour may be of mesenchymal origin and suggest that radiotherapy may be more beneficial, while chemotherapy should be considered for tumours deemed to be of epithelial histogenesis.

Tumours of the same cellular composition as described by Nai et al. have been defined by the current WHO Classification of Tumours of the pancreas as a rare variant of ductal adenocarcinoma, designated 'undifferentiated carcinoma with osteoclast-like giant cells'. Recent studies confirm the duct epithelial origin of these tumours by demonstration of (1) foci of conventional ductal adenocarcinoma within the tumour [3]; (2) occasional association with mucinous cystic neoplasia [3,4]; (3) cytokeratin expression in at least some of the pleomorphic tumour cells [3–5], and (4) K-ras codon 12 mutations in the pleomorphic tumour cells, with identical mutations identified in associated foci of conventional adenocarcinoma or intraductal neoplastic lesions [4,5]. In contrast, the osteoclast-like giant cell population present in these tumours is consistently found to be of a non-neoplastic mesenchymal nature, characterized by the lack of morphological atypia, proliferative activity, and K-ras and p53 abnormalities [3–5].

We would be interested to know why the authors believe that their case differs from undifferentiated carcinoma with osteoclast-like giant cells, in particular why the nature of the osteoclast-like giant cells would determine the histogenesis of this tumour and the choice of adjuvant treatment.

References


Reply

Dear Drs. Verbeke and Menon,

We do not believe that our case differs from undifferentiated carcinoma with osteoclast-like giant cells and we do not conclude that the tumor is of mesenchymal origin. Our case clearly has a malignant epithelial component, which is depicted in some figures. The osteoclast-like giant cells have a mesenchymal origin demonstrated by immunohistochemical studies. We questioned whether radiotherapy could help in those cases lacking an epithelial differentiation, which is not our case. We believe that in the case we reported chemotherapy should be used because it is an adenocarcinoma.

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