Small cell carcinoma in common bile duct brushing: A rare cytopathological diagnosis

Sir,

Small cell carcinoma (SmCC) usually involves lungs. Extra-pulmonary primary SmCC comprises nearly 2.5% of all SmCCs,[1] Biliary tract brush cytology is useful in evaluating pancreaticobiliary tract tumors.[2] However, SmCC has never been reported in common bile duct (CBD) brushing smears.

A 38-year-old male, smoker, referred to us with history of jaundice/yellowish discoloration since 12 days. His abdominal computed tomogram showed a gall bladder mass, infiltrating the liver and associated with tumor thrombus.

His serum bilirubin level was raised (13.98 mg/dL. Reference range = 0.3-1.2 mg/dL); serum globulin level was raised (4.6 g/dL. Reference range = 1.7-3.5 g/dL); alkaline phosphatase level was raised (756 U/L. Reference range = 30-120 U/L); aspartate transaminase level was raised (304 U/L. Reference range = 10-37 U/L) and alanine transaminase level was raised (2.6 g/dL. Reference range = 3.5-5.2 g/dL).

His carcino-embryogenic antigen level was raised (5.46 ng/mL. Reference range = 0.3-2.7 ng/mL). His celomic antigen (CA) 19.9 level was also raised (224.68 U/mL. Reference range = 0-37 U/mL).

Common bile duct brushing smears revealed benign glandular cells, admixed with groups of small, round to oval cells containing scanty cytoplasm and displaying nuclear molding, hyperchromatic nuclei with granular stippled “salt and pepper” nuclear chromatin and focal streak artifact [Figure 1]. Diagnosis of SmCC was offered.

Histopathology of the gall bladder biopsy revealed malignant round cells with hyperchromatic nuclei, within tumor necrosis. On immunohistochemical (IHC) staining, tumor cells were diffusely positive for synaptophysin, chromogranin and (CD56/neural cell adhesion molecule) [Figure 2]. Diagnosis of SmCC was confirmed.

Unfortunately, the patient died within 2 months of presentation, just after stenting was performed.

Among extra-pulmonary sites, SmCCs rarely occur in the biliary tract.[3-5] Cytopathological examination of CBD smears is commonly performed in patients undergoing endoscopic retrograde cholangio-pancreatography.[2]
Letters to Editor

To the Editor:

The previous report by Ruckdeschel et al. [1] described a case of a small-cell carcinoma (SmCC) of the duodenum, while a similar case was reported by Mohammad Alizadeh AH et al. [2] We present a case of a 66-year-old woman with a painless lump in the right breast. The clinical examination revealed an ill-defined firm mass in the lower outer quadrant of the right breast measuring 2 cm. The overlying skin, nipple, and areola were normal. Mammography revealed a right-sided, ovoid, mass with no calcifications. The fine needle aspiration cytology (FNAC) of the breast mass was performed and the aspirates showed high cellularity and consisted of dyscohesive population of cells with predominantly plasmacytoid morphology, causing confusion with a primary plasmacytoma of the breast.

A timely diagnosis in such cases has therapeutic relevance. Treatment options include chemotherapy and surgical debulking. Whereas one of the earlier reported cases died of pneumonia, there was another case alive after 1-year postresection. Unfortunately, the present case died during stenting.

To conclude, this forms the first reported cases of SmCC, diagnosed on CBD brushing smears. Careful attention towards “key” cytopathological features, especially nuclear chromatin pattern can be helpful in diagnosing such tumors at rare sites and in various cytology specimens.

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Plasmacytoid appearance of tumor cells in breast aspirates on fine needle aspiration cytology: Diagnostic predicament for the cytopathologist

Sir,

Plasmacytoid appearance of cells in breast aspirates on fine needle aspiration cytology (FNAC) can cause diagnostic difficulties. We describe a case of a 66-year-old woman with plasmacytoid morphology of breast tumor cells on FNAC, confirmed to have lobular carcinoma breast on histology.

A 66-year-old woman noticed a painless lump in the right breast of 2 months duration. Clinical examination revealed an ill-defined firm mass in the lower outer quadrant of the right breast measuring 2 cm. The overlying skin, nipple, and areola were normal. Mammography revealed a right-sided, ovoid, mass with no calcifications. The fine needle aspiration cytology (FNAC) of the breast mass was performed and the aspirates showed high cellularity and consisted of dyscohesive population of cells with predominantly plasmacytoid morphology, causing confusion with a primary plasmacytoma of the breast.

A timely diagnosis in such cases has therapeutic relevance. Treatment options include chemotherapy and surgical debulking. Whereas one of the earlier reported cases died of pneumonia, there was another case alive after 1-year postresection. Unfortunately, the present case died during stenting.

To conclude, this forms the first reported cases of SmCC, diagnosed on CBD brushing smears. Careful attention towards “key” cytopathological features, especially nuclear chromatin pattern can be helpful in diagnosing such tumors at rare sites and in various cytology specimens.