Letters to the editor 153

## A case report of composite adenoendocrine carcinoma of the cecum: Clinical and pathological evaluation

Çekumun bileşik adenoendokrin karsinomu: Klinik ve patolojik değerlendirme (Vaka sunumu)

To the Editor,

Tumors containing both mucinous and endocrine cells (adenoendocrine tumors) can be seen in the gastrointestinal system (1). Adenoendocrine carcinomas – histologically classified first by Lewin (2) in 1987 and later by Fenoglio-Preiser (3) in 1999 – are located in a wide spectrum between collision and composite tumors and are often difficult to distinguish. Composite tumors are thought to arise through a multidirectional differentiation of a single neoplasm. Collision tumors are believed to result from biclonal transformation of two separate but adjacent neoplasms.

A 67-year-old woman presented with a three-month history of abdominal pain. The physical examination disclosed only a semi-mobile 12x10 cm-sized abdominal mass in the right lower quadrant. CEA, CA19-9 and CA125 levels were within normal reference levels. Computed tomography of the abdomen revealed a soft tissue mass in the cecum measuring 9.5x8 cm in maximum dimension. A right hemicolectomy, terminal ileum resection, cholecystectomy and retroperitoneal lymph node dissection were performed.

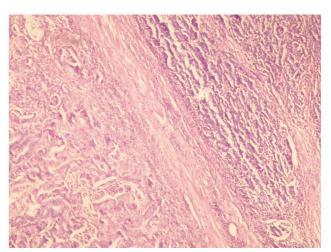
Microscopic sections showed two components: the first component was a well-differentiated adenocarcinoma and the second was characterized as a high-grade small cell neuroendocrine carcinoma. One area of transition between the two histological types was observed (Figure 1).

Sixteen pericolic lymph nodes were found in the mesentery; five contained metastases of the small cell carcinoma and one of the adenocarcinoma with extracapsular extension.

Immunohistochemically, diffuse positivity for neuron specific enolase (NSE) and focal positivity for pan cytokeratin (CK) and synaptophysin were observed in the small cell carcinoma. There was no

staining for LCA, chromogranin, CD57, TTF-1, S-100, m-CEA, CK and CK20 in the small cell carcinoma. In the well-differentiated adenocarcinoma areas, diffuse positivity for pan CK and m-CEA and focal positivity for CK20 were observed. These areas were not stained for LCA, CK7, synaptophysin, chromogranin, CD57, and NSE.

Although gastrointestinal adenoendocrine carcinomas are very frequently reported in the appendicial region, they are very rare in the esophagus, stomach, and small and large bowel. The glandular component of these tumors is usually malignant. Fourteen tumors with benign glandular component (adenoma) in the colorectal region have been reported and four of them were located in the cecum (1). A review of the English literature revealed that four collision and two composite tumors located in the cecum with adenocarcinomatous glandular component have been reported. The endocrine component for three of the cases was well-



**Figure 1.** Adenocarcinomatous glands (left) and small cell neuro-endocrine carcinoma cells (right) with transitional zone in between (medium power) (hematoxylin & eosin, X100).

differentiated carcinoid and for the other three was poorly-differentiated (atypical) carcinoid (4-6).

Levendoglu et al. (5) reported two cases of cecal adenoendocrine carcinomas with poorly- differentiated endocrine component. A case with atypical carcinoid as the endocrine component was reported from Japan and that patient died with local recurrence nine months after surgery (4).

In conclusion, as more such rare tumors with a spectrum of morphological combinations are recognized and reported, their clinical behavior and prognosis will become better understood. However, strict criteria for diagnosis should be fulfilled and supported by immunohistochemistry to avoid an overlap with the poorly-differentiated adenocarcinoma.

## REFERENCES

- Pecorella I, Memeo L, Ciardi A, Rotterdam H. An unusual case of colonic mixed adenoendocrine carcinoma: collision versus composite tumor. A case report and review of the literature. Ann Diagn Pathol 2007; 11: 285-90.
- Lewin KJ. The endocrine cells of the gastrointestinal tract.
  The normal endocrine cells and their hyperplasias. Part I.
  Pathol Annu 1986; 21: 1-27.
- Compton C, Fenoglio-Preiser CM, Pettigrew N, Fielding LP. American Joint Committee on Cancer Prognostic Factors Consensus Conference: Colorectal Working Group. Cancer 2000; 88: 1739-57.
- 4. Watanabe I, Yamauchi H, Iwamasa K, et al. Endocrine cell carcinoma (atypical carcinoid) of the ileocecal region adjacent to an adenocarcinoma. Nippon Ronen Igakkai Zasshi 2002; 39: 549-53.
- Levendoglu H, Cox CA, Nadimpalli V. Composite (adenocarcinoid) tumors of the gastrointestinal tract. Dig Dis Sci 1990; 35: 519-25.
- Toker C. Some observations on the deposition of metastatic carcinoma within cervical lymph nodes. Cancer 1963; 16: 364-74.

Lütfi DOĞAN<sup>1</sup>, Niyazi KARAMAN<sup>1</sup>, Nazan BOZDOĞAN<sup>2</sup>, Can ATALAY<sup>1</sup>, Kerim Bora YILMAZ<sup>1</sup>

Departments of 'Surgery and 'Pathology, Ankara Oncology Education and Research Hospital, Ankara

## Epstein-Barr virus-induced severe hepatitis in an immunocompetent infant

İmmun yetmezliği olmayan bir süt çocuğunda "Epstein-Barr" virüsüne bağlı ağır hepatit

To the Editor,

Epstein-Barr virus (EBV) infection causes infectious mononucleosis (IM) in older children and adults, while it is often subclinical in young children. Mild or moderate elevations of transaminases are seen in almost all cases but they rarely exceed 1000 IU/L (1,2). Bilirubin is mildly increased in 45% of cases, whereas jaundice is seen in only about 5% of patients (3). Severe hepatitis and liver failure associated with EBV infection have been

rarely reported and are mostly related to congenital or acquired immunodeficiency (4). Severe liver injury is the main cause of death among fatal cases of EBV infection (5). We report a case of EBV-induced severe hepatitis in an immunocompetent 10-month-old male infant.

A previously healthy 10-month-old boy presented with a one-week history of fever, vomiting and jaundice. On admission, his liver and spleen were