

A Case of Mixed Adenoneuroendocrine Carcinoma of the Colon Diagnosed by Histology

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Introduction: The presence of neuroendocrine component in gastrointestinal adenomas/adenocarcinomas or exocrine component in gastrointestinal neuroendocrine neoplasms are frequently observed in routine practice. However, mixed exocrine-neuroendocrine tumors are rarely found. In the recent WHO classification, neoplasms with an exocrine and a neuroendocrine component are called “mixed adenoneuroendocrine carcinomas” (MANECs). Herein, we report a rare MANEC case which arose in the ascending colon which showed non-specific colonoscopic or imaging finding but diagnosed by histology. **Case:** A 32-year-old male was transferred to our department with complaints of dizziness and abdominal bloating. Endoscopy and abdominal sonography were done in the local clinic, and huge mass on cecal area was detected on the abdominal sonography. Accordingly, abdominal CT, colonoscopy, and laboratory study were done for the cecal mass evaluation. Initial laboratory data showed 5.2 g/dL of hemoglobin level, and huge fungating mass which interrupt the lumen of the ascending colon was noted on the colonoscopy. Abdominal CT showed invagination of terminal ileum into the ascending colon with 3 cm sized ileocecal mass. Since the histology represented moderately differentiated adenocarcinoma, and no other metastatic lesion was seen except several mesenteric and aortocaval lymph nodes on PET/CT, the patient underwent right hemicolectomy. The proximal and distal resected margins of the specimen were free from tumor involvement. Histopathology examination of the cecal mass revealed both sheets of monomorphic large cells with large round nucleus, abundant cytoplasm, and islands of tumor with glandular structures amounting more than 30% of the tumor. The final histopathological diagnosis was MANEC of the ascending colon, tumor stage T3N2M0 (IIIC). After the surgery, the patient underwent 8 times of adjuvant chemotherapy with 5-FU and oxaliplatin. The follow up abdominal CT after 4 times of chemotherapy showed no evidence of recurrent tumor.

Implication of Repeated Review in Capsule Endoscopy for the Detection of Abnormal Lesions

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Background: About 40,000 to 60,000 images are analyzed for a complete interpretation of a single capsule endoscopy case. Diagnostic yield of capsule endoscopy for occult gastro-intestinal bleeding is between 60 and 70 percents. However overall abnormality detection rate is roughly 30 to 50 percents due to excessive workload which can result in examiners missing significant lesions during the review of capsule endoscopy images. Because of the poor detection rate, meticulous analysis of images has become critical for safe patient-care. Impact of re-review on the detection rate of abnormal lesions is not known. In this study, we compare the detection rates of abnormal findings in different re-review methods for capsule endoscopy. **Methods:** Capsule endoscopy for 20 patients were conducted. Indications include obscure gastro-intestinal bleeding, small bowel tumor and chronic abdominal pain. Four endoscopists interpreted capsule endoscopy images. Second reviews were performed by the same clinician (A-A) and other clinician (A-B). Three modes of interpretation of capsule endoscopy were compared; A vs. A-A vs. A-B. PillCam SB, Giveni Imaging Ltd. was used for the evaluation. Collected images were reviewed with RAPID Reader 5. Consensus standard of small bowel diagnosis had been established by joint review sessions with highly experienced endoscopists. **Results:** The mean age of subjects was 52.4±20.03 (12 Male, 8 Female). The detection rate of the re-reviewed group done by a single clinician (A-A) was higher than the single review group (A) (82.7% vs. 55.5%, $p < 0.05$). The detection rate of re-analysis by different clinicians (A-B) was also higher than the single review group (A) (85.5% vs. 55.5%, $p < 0.05$). **Conclusions:** Because re-reviewing capsule endoscopy added more information for patients, re-review may be effective enough to be considered as a routine interpretation protocol.

Review Methods	Mean detection rate (CI 95%)
A	55.5 (48.2-62.8)
AA	82.7 (75.5-89.8)
AB	85.5 (78.7-92.2)