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Case Report

Fatal Intestinal Perforation in Patient Treated with PD-1 Inhibitor

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Case Report

A 54-year-old man, former smoker, was diagnosed with localized lung squamous cell carcinoma in 2013. He was treated by surgery with bi-lobectomy. Definitive extension was pT3N1M0 and he received 4cycles of adjuvant chemotherapy with cisplatin vinorelbine. During adjuvant chemotherapy occurrence of metastasis of the right tibia, treated with radiotherapy.

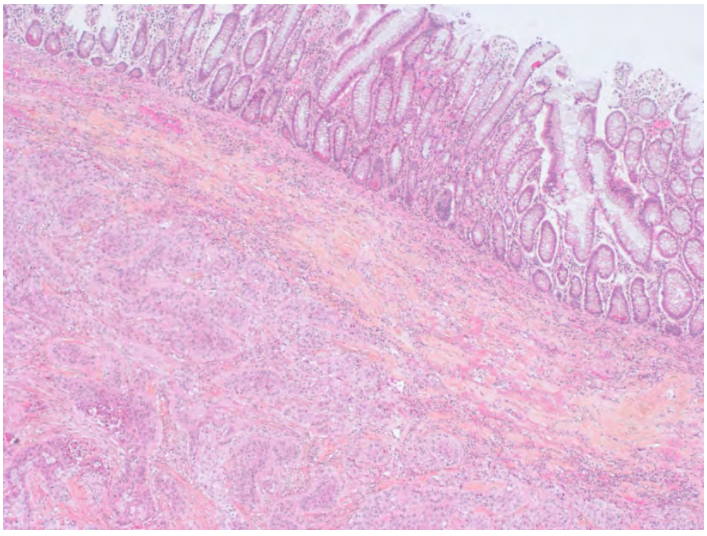
Nine months after adjuvant chemotherapy, his disease has metastasized on left kidney; he received treatment with paclitaxel and carboplatin and he received a complement of radiotherapy (30 Gy in 10 fractions) on kidney lesion for hematuria and pain. After 6 cycles of chemotherapy he presented a progressive disease, treated with 10 cycles of docetaxel. On July 2015, progressive thoracic disease without peritoneal metastasis was revealed by PET/CT. Patient received programmed death-1(PD-1) checkpoint inhibitor, (OPDIVO®, Nivolumab, Bristol-Myers Squibb Company).

The tolerance to this treatment was good until 5th cycle without grade 3 or 4 toxicities, when the patient presented in emergencies for peritonitis.

Laparotomy was performed and revealed perforation in left angle colic. The anatomopathology confirmed a perforation on metastatic lesion and remote presence of colitis lesions (Figure 1). Resection of the mass kidney lesion, revealed only necrotic tissue (Figure 2). The patient died after one month of reanimation of septic complication.

Peritoneal carcinomatosis and bowel perforation are rarely observed complications in lung cancer and are reported primarily in the form of cases reports. Digestive or intestinal perforations are often observed in patients receiving chemotherapy with anti VEGF-R [1,2]. The colonic metastasis of lung squamous cell carcinoma is found in 2.5% of cases an autopsy series [3].

A



B

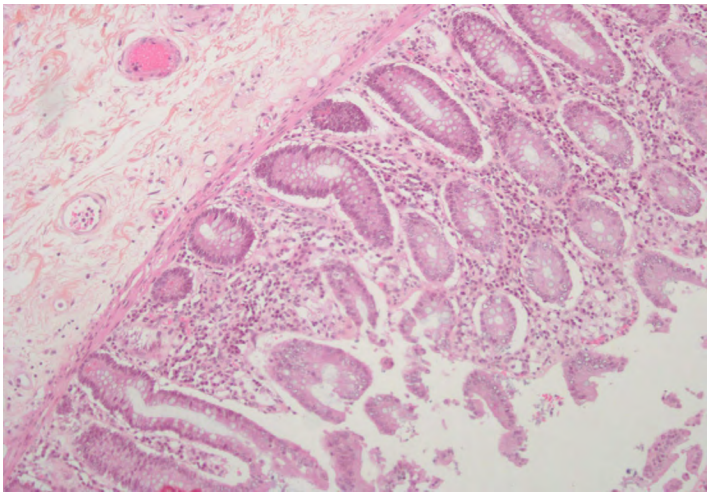


Figure 1. A and B**.** (HES x 200). (A) Colonic metastasis of lung squamous cell carcinoma (B) Ischemic necrosis colic: fibrosis of the chorion and atrophy of the colonic glands.

The immunological activity of nivolumab induced a significant anti-tumor response in a peritoneal carcinomatosis, which was not known and complicated by colitis lesion, although the patient had not presented digestive symptoms like diarrhea with throughout his treatment. The digestive complications, including colitis, 3 or 4 grade were observed in only 1% of patients in the study with nivolumab and no intestinal perforation have been reported [4]. The colitis complications seem more frequent with the ipimulimab, and in 1% a bowel perforation has been reported [5].

In patients treated with immunotherapy having tumor response, clinicians must remain vigilant in monitoring and search for digestive side effects, especially in cases of suspicion of intestinal metastasis even if there are few symptoms.

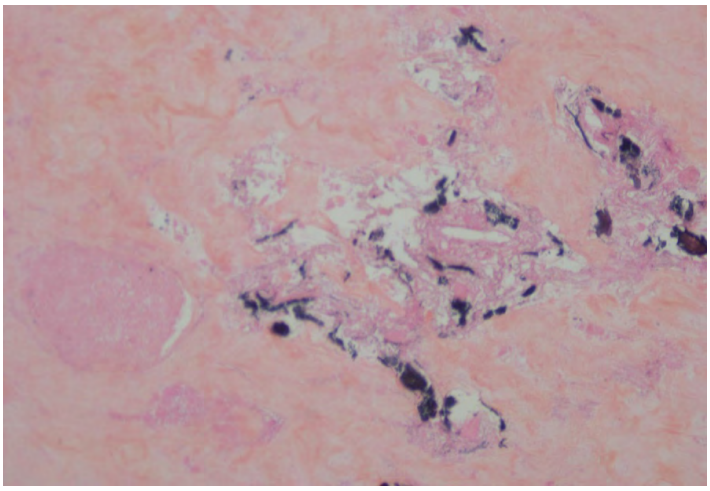


Figure 2. (HES x 400). Metastasis kidney necrotic and calcified.

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