INTRODUCTION

Perforation is one of the uncommon complications of colonoscopy. Prevalence of this complication has been reported to be about one percent. Perforation can be due to penetration of the tip of colonoscopy device, excess air during colonoscopy, or other interventions such as performing biopsies and cauterization.\(^1\) Perforation may be manifested in different ways. Acute abdominal symptoms and peritoneal irritation signs are the most common manifestations.\(^1\)\(^,\)\(^2\) In rare clinical conditions, when perforation is oriented toward retroperitoneal area, subcutaneous emphysema may occur. This phenomenon has been scarcely reported previously.\(^2\)\(^,\)\(^3\) Therefore physicians must be aware of such a potential complication, which at first may seem unrelated to colonoscopy.

Herein, we report a patient with an infrequent and at the first view irrelevant complication of diagnostic colonoscopy.

CASE REPORT

A 54-year-old woman with the history of a single episode of bleeding from rectum was referred for colonoscopy. The patient received complete colonic preparation for this procedure. During colonoscopy, the colon was viewed thoroughly and successfully upto ileocecal junction. No apparent abnormality was found except for a small internal hemorrhoid. Some random mucosal specimens were taken for pathological investigation from various parts of the colon, which were reported later as non-specific mucosal inflammation. About 15 minutes after completion of the procedure, the patient suddenly developed respiratory distress and severe swelling of face and neck, which was compatible with subcutaneous emphysema. She was then admitted to emergency ward immediately and a consultation with the department of surgery was requested.

On X-ray, air was seen in mediastinum. Therefore, the patient was transferred to surgical department for further evaluation and treatment. She was conscious and afebrile with tachycardia and tachypnea. Emphysema was obvious in facial areas with crepitation in chest and neck. Auscultation of lungs was normal. A reduction in the number of bowel sound was detected. Abdomen was soft in palpation with an area of slight tenderness in left lower quadrant of the abdomen. Digital rectal exam revealed no abnormality.

White Blood Cell (WBC) count was 11000/µL. Serum electrolytes were within normal range. A slight metabolic acidosis was detected in arterial blood gas of the patient. In the requested plain abdominal film, air was found around both kidneys, but there was no free air within peritoneal cavity which was consistent with pneumoretroperitoneum later confirmed on CT scan (Figures 1 and 2). With the above-mentioned findings, an intravenous antibiotic therapy (including Ceftriaxone 1gr b.i.d., and Metronidazole 500mg q.i.d.) was started for the patient.

About 20 hours after onset of the manifestations, the patient developed fever of 38.5 degree celsius. The abdomen became severely tender and WBC count reached 14000/µL. It was then decided to transfer the patient to the operating room for laparotomy. After the abdomen was opened, it was noticed that abdominal...
In conclusion, physicians should be aware of the possibility of retroperitoneal perforation after colonoscopy, and patients should be closely monitored after development of primary symptoms.

REFERENCES


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