

Grey Turner's and Cullen's signs induced by spontaneous hemorrhage of the abdominal wall after coughing

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Grey Turner's and Cullen's signs are rare clinical signs, which most appear in patients with severe acute pancreatitis. The present patient complained of abdominal pain after coughing. However, contrast-enhanced CT revealed a hemorrhage of the abdominal wall. Therefore, spontaneous hemorrhage of the abdominal wall was diagnosed. The patient recovered through immobilization and hemostasis therapy. This case report and literature review aims to remind clinicians of manifestations and treatment of spontaneous hemorrhage.

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Key Words: Grey Turner's sign, Cullen's sign, Spontaneous hemorrhage

INTRODUCTION

Grey Turner's and Cullen's signs generally suggest a large retroperitoneal hematoma, such as hemorrhagic pancreatitis. The current case was unusual because of a spontaneous hemorrhage of the abdominal wall after coughing leading to Grey Turner's and Cullen's signs. Spontaneous bleeding of the abdominal wall is rare, especially in elderly patients.

CASE REPORT

An 81-year-old man presented to our department for evaluation of pain after coughing over the right lateral abdominal wall of 1 day's duration. However, the cough was not serious and was similar with a normal cough. The patient was previously healthy and there was no history of abdominal trauma. An appendectomy was performed at 50 years of age. Moreover, the patient had a benign medical history and was not taking any medications. On physical examination, bilateral Grey Turner's sign (Fig. 1), Cullen's sign (Fig. 2), and extensive ecchymoses involving the chest, lower abdominal wall, and

right thigh were noted (Fig. 2). All of the laboratory tests were normal, except that hemoglobin was decreased to 10.5 g/L. Contrast-enhanced CT of the abdomen revealed a huge hematoma in the right lateral abdominal wall (Fig. 3). Therefore, Grey Turner's and Cullen's signs induced by spontaneous hemorrhage of the abdominal wall after cough were diagnosed. Immobilization and hemostasis were instituted for 5 days and the patient returned to his baseline condition after 20 days. The elderly man was doing well at the 4-month follow-up visit.

DISCUSSION

This case highlights a rare case of acute abdominal symptoms, and coughing was the main reason to account for as the cause of bleeding. Based on the presentation of Grey Turner's and Cullen's signs, acute hemorrhagic pancreatitis was the initial consideration. The abdominal CT led to a diagnosis of hematomas of the lateral abdominal wall. With no apparent abnormality in the patient's medical history, Grey Turner's and Cullen's signs induced by spontaneous hemorrhage of the abdominal wall were diagnosed. There are

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Fig. 1. Bilateral Grey Turner's sign.



Fig. 2. Cullen's sign around navel.

a number of reports in the literature describing spontaneous hemorrhage of the abdominal wall. Most of the cases were induced by trauma, coagulation disorders or anticoagulant therapy, complications related to surgery, cardiovascular disease, and subcutaneous injections to the abdominal wall [1]. Mahmood et al. [2] first reported spontaneous hematomas involving the lateral abdominal wall. Irwin [3] reported that coughing causes intense contraction of the rectus muscle, with tearing and bleeding from the perforating branches of the inferior epigastric vessels within the muscle substance. The present case is similar to the cases reported by Irwin [3]. Di

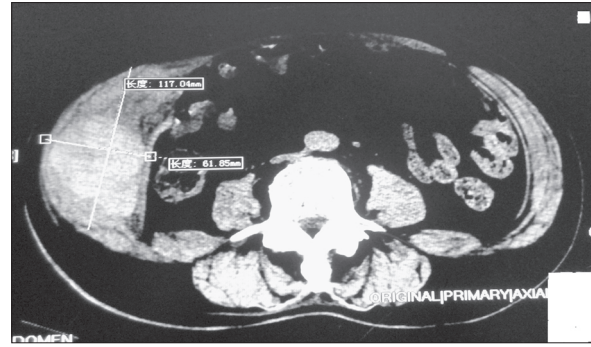


Fig. 3. Contrast-enhanced CT of the abdomen showing a huge hematoma in the right lateral abdominal wall.

Bisceglie and Richart [4] reported spontaneous retroperitoneal hemorrhage could appear in patients with cirrhosis. Dasa et al. [5] illustrated a rare case of cough resulting in endobronchial cartilage rupture because cough increased positive expiratory pressure. Lashbrook et al. [6] expounded a trivial episode of coughing that brought about spontaneous splenic rupture. There are some rare causes accounting for intra-abdominal bleeding including a ruptured omental aneurysm [7] and retroperitoneal bleeding including giant adrenal lipoma [8] and primary osteosarcoma of the kidney [9]. Although there was an obvious reason such as coughing, there may have been other reasons similar to coughing leading to this result. Also, this is the first case involving Grey Turner's and Cullen's signs induced by spontaneous hemorrhage of the abdominal wall after coughing. When encountering Grey Turner's signs, the following diagnoses should be considered: ectopic pregnancy; perforated duodenal ulcer; portal hypertension; splenic rupture; and herniorrhaphy [10].

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

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