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Letter to the Editor

Incarcerated Incisional Hernia Complicated by Abdominal Wall Abscess in an Elderly Patient☆

Dear Editor

Incisional hernia, the abdominal viscera's protrusion at a previous surgical incisional site, occurs in about 10% of patients after laparotomy and 0.1–0.3% after a laparoscopic procedure[1,2]. If the incisional hernia cannot be reduced, it is called an incarcerated hernia, which can obstruct the bowel and possibly strangle or impede the blood supply to the herniated bowel. These latter findings require an immediate surgical decision to reduce the possibility of ischemia of the bowel and to prevent further morbidity and mortality. Herein, we report a case of an incarcerated incisional hernia complicated by an abdominal wall abscess in a 78-year-old obese female patient.

A 78-year-old obese female, with a history of diabetes mellitus, presented to the emergency department with a mass that had been protruding from her abdominal wall for 3 days. Upon arrival, her initial vital signs were as follows; heart rate 110/minute, body temperature 38.1°C and blood pressure 102/68 mmHg. She had had a gastric operation 20 years previously. Recently, the mass had grown rapidly from her previous incisional site. It was irreducible and tender with erythematous swelling. Laboratory data showed a white cell count of 12,800/mm^3 with a left shift, elevated C-reactive protein, and a blood sugar level of 287 mg/dL. Under the impression of an incarcerated incisional hernia with a suspected abdominal wall abscess, we performed an emergent contrast-enhanced computed tomography (CT) scan of the abdomen (Figs. 1 and 2). The images revealed a suspected incarcerated incisional hernia, with an abdominal wall abscess. After receiving an empirical antibiotic, the patient underwent repair of the incarcerated hernia and drainage of the abdominal wall abscess. A hernia

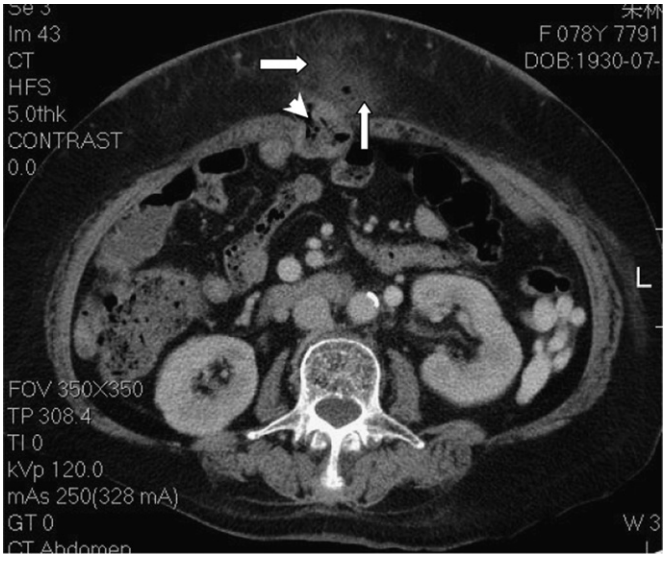

Fig. 1. A transverse reformatted computed tomographic image at mid-abdomen shows an incarcerated incisional hernia at the previous incisional site (arrowhead) with abscess formation (arrows).

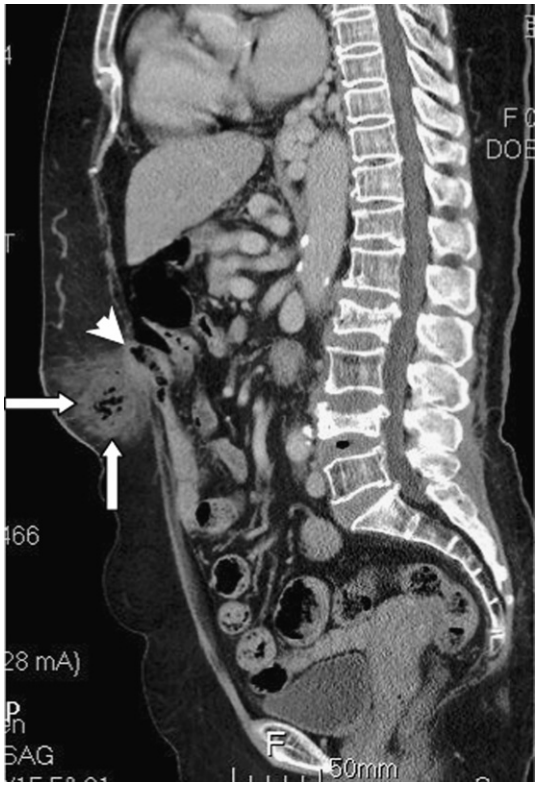

Fig. 2. A sagittal reformatted contrast-enhanced computed tomographic image at mid-abdomen, showing an incarcerated incisional hernia at the previous incisional site (arrowhead), with abscess formation (arrows).

☆ All contributing authors declare no conflict of interest.

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sac with a 2.2 cm size abdominal wall defect contains a segment of the small bowel incarceration but without any evidence of ischemic change. A hernia sac was repaired with a 1-0 vicryl interrupted suture. Because of the patient's age, some comorbidity, septic shock from intraabdominal infection, and failure of weaning ventilator several times, the patient received prolonged intensive care. She was then sent to a respiratory care center for weaning ventilator with continued total parenteral nutrition support. Her blood culture yielded *Acinetobacter baumannii*, and pus culture grew both *Escherichia coli* and *Klebsiella pneumoniae*. The patient was discharged after 48 days in a stable condition.

Most incisional hernias involve the ventral abdominal wall. Obesity and postoperative wound infection, with subsequent dehiscence, are predisposing factors[1,2]. In a previous study, risk factors for incisional hernias include old age, obesity, postoperative wound infection, chronic pulmonary disease, ascites, malignant tumor, and malnutrition[3]. Although clinicians usually assess hernial incarceration accurately, its diagnosis can be difficult when its clinical presentation is atypical or when the physical examination is limited[4]. Gas in the bowel wall, or free gas, in either the abdomen or the hernial sac, is a sign of a complicated hernia in CT findings[5,6]. CT is an accurate method of identifying the various types of abdominal wall hernias, especially if they are clinically occult, and of distinguishing them from other diseases such as hematomas, abscesses and neoplasia[5]. Diagnosis is frequently unclear, and delays in initiating treatment often result in loss of tissue and life. Abdominal wall hernias in the elderly, by contrast, usually present no diagnostic dilemma. However, these hernias are frequently neglected by both the patient and the physician[7]. Older age, severe coexisting diseases, and late hospitalization were the main causes of unfavorable outcomes of the management of incarcerated hernias[8]. Sonography or CT images can confirm the diagnosis preoperatively, to reduce unnecessary morbidity and mortality, especially in elderly patients.

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