Case Report

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A Typical Presentation of Grey Turner's Sign in Acute Necrotizing Pancreatitis

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Abstract

Subcutaneous manifestations of acute pancreatitis have been mentioned in reference texts with Grey turner's sign and Cullen's sign being the most prominent amongst others like Fox's sign and Walzel's sign.

Inspite of exhaustive reference of these signs many physicians have not seen the representative cases and at times are not able to appreciate them. Grey turners sign is produced by spread of liberated pancreatic enzymes from the anterior para renal space between the two leaves of posterior renal fascia and subsequently to the lateral edge of quadratus lumborum. The prevalence of this sign has been mentioned as 3% in previous studies with mortality rate of 37% amongst patients with positive sign.

The submitted case report highlights the typical presentation of acute pancreatitis manifesting Grey turner's sign. The skin sign of acute pancreatitis are rare but if present they confer a poor prognosis, henceforth recognising such patients with severe acute pancreatitis as soon as possible is critical for achieving optimal outcomes.

Keywords: Abdominal Pain; Acute Pancreatitis; Grey Turner's Sign; Cullen's Sign.

Introduction

Acute pancreatitis is one of the most common reasons for hospitalization for a gastrointestinal related disease. The risk of acute pancreatitis increases with age. Both men and women are at risk for pancreatitis; however gender difference is determined by the cause of acute pancreatitis. For example, acute pancreatitis due to alcohol is more likely in men than in women, which reflects more use of alcohol in men. In contrast, acute pancreatitis due to gallstones is more common in women. The reported annual incidence of acute pancreatitis has ranged from 4.9 to 35 per 100,000 populations. The incidence of acute pancreatitis is increasing due to increased alcohol consumption and better diagnostic capability. Mortality in acute pancreatitis is usually due to systemic inflammatory response syndrome and organ failure in the first two-week period, while after two weeks it is usually due to sepsis and its complications.

Grey Turner's sign was described by a British surgeon for the first time in 1920 in a patient of acute pancreatitis. This sign is nonspecific for acute pancreatitis and has been described in retroperitoneal hemorrhage secondary to hepatocellular carcinoma, trauma, peri renal hematoma, and portal hypertension. The Grey-Turner's sign is produced by spread of the pancreatic inflammation from the anterior pararenal space between the posterior renal fascia and subsequently to the lateral edge of the quadratus lumborum muscle. The skin signs of acute pancreatitis are rare, but, if present, they confer a poor prognosis, as in our case. Recognizing patients with severe acute pancreatitis as soon as possible is critical for achieving optimal outcomes. Management depends largely on severity. Medical treatment of mild acute pancreatitis is relatively straightforward. Treatment of severe acute pancreatitis involves intensive care. Surgical intervention (open or minimally invasive) is indicated in selected cases.

Case History

31 yr old male patient presented to the ED with complaining of severe pain abdomen, mainly in the epigastric region since morning associated with distension of the abdomen. The pain is constant in nature and the pain aggravates on movement. There are no relieving factors. There is also associated swelling and redness of the right flank region since morning. The patient also has vomiting. The symptoms have remained constant since morning and not relieved on taking medications. No h/o fever, vomiting, dysuria, bowel disturbance, hematemesis, hematuria, and hematochezia or bleeding from any site. There is no history of any trauma and the pain has been gradually increasing. He took some pain medications at home but without any improvement. Patient is a chronic alcoholic and has consumed some drinks in the late evening before coming to the emergency. The patient did not experience similar pain before and is not on any regular medication.

O/E

Primary Survey

Airway Assessment :Patent

Breathing Assessment

Respiration(RR/min) : 18/MIN

Laboured: No

SpO2 : 96% on Room Air

Circulation

Pulse : 120/m

BP : 140/90

Peripheral Pulses :Yes

Temperature : 98.4

Cardiac Monitor : Sinus Tachycardia

Pupils

Right eye: NSNR

Left eye: NSNR

Secondary Survey

Heent : No Pallor, Icterus, Cyanosis

Chest : Air entry bilateral equal and no added sounds. Vesicular breath sound. Tachypnic but no intercostals rectractions.

CVS : S1 S2 present and no murmur.

Abdomen: on inspection look distended and no visible peristalsis. The patient is lying still in the bed and c/o constant severe pain.

On palpation there is superficial tenderness and deep tenderness diffusely over the whole of the abdomen. There is also voluntary guarding and rigidity and tender ecchymotic area (around 10 cm) over the right side of the flank. And no pulsatile abdominal mass. No organomegaly and no distended abdominal veins.

Fig. 1:

Fig. 2:

On percussion there is no fluid thrill and no shifting dullness .

On auscultation there is no abdominal bruit.

The hernial orifice and genito urinary system wnl and per rectal examination showed no blood and no rectal tenderness.

Neuro : conscious, oriented to time place and person and no fnd. No neck rigidity.

Ext: peripheral pulses+, no edema, no flapping tremor and no spider naevi and no gynaecomastia.

No distended neck veins. No clubbing.

Ample History

Allergies: No Known Allergies.

Medications: No Previous Medication.

Past History: known alcoholic.

Last Meal: Consumed Alcohol 2 hours prior to arrival to ED.

Events: Gradually increasing pain abdomen with 2 episodes of vomiting.

Working Diagnosis

Acute alcoholic gastritis, acute pancreatitis, acute cholecystitis, perforation with peritonitis.

Treatment Advised IN ER

Iv Fluid 0.9% Ns 1000ml IV Stat

Iv Pan top 40mg Stat

Iv Emeset 4mg Stat

Iv Tramadol 100mg IV Stat.

Patient Kept Npo.

VBG: pH 7.23, PCO2 52mmHg , PO2 65mmHg , HCO3 18 , Lactate 2.9

ECG: Sinus Tachy and No St-T Chages and No Ectopy.

Usg Abdomen: Multiple isechoic foci along the gall bladder wall? Polyps. Slightly hypoechoic and bulky appearances of pancreas.

Laboratory Investigations

TLC	5.4 10~9/L
RBC	4.1 L 10~12/L
Hemoglobin	15.4gm/dL
Packed Cell Volume	54.1%
MCV	107.6 HfL
MCH	35.2 Hpg
MCHC	32.7 gm/dL
RDW	16%
Platelet Count	120 L 10~9/L
Neutrophils	68%
Lymphocytes	25%
Monocytes	4%
Eosinophils	3 %
Serum Creatinine	0.57
Sodium	136mmol/L
Potassium	3.8mmol/L
Chloride	101.4mmol/L
Total Protein	6.5g/dL
Albumin	3.8g/dL
Bilirubin,Total	1mg/dL
Bilirubin,Direct	0.2mg/dL
Serum Amylase	730U/L
Serum Lipase	850 HU/L
A.G. ratio	1.4
Globulin	2.7g/dL
Bicarbonate	22mmol/L
Bilirubin,Indirect	0.8mg/dL
Serum Urea	21mg/dL
SGOT	299
SGPT	123
Ggtp (Gamma GT), Serum.	892
Alkaline Phosphatase.	130

Final Diagnosis

Acute alcoholic pancreatitis with? hemorrhagic transformation

Conclusion

Although acute Pancreatitis is a quite common presentation among the alcoholics but the tell-tale signs of Acute Hemorrhagic Pancreatitis is not a very common presentation. Thus as emergency physician this Grey Turner Sign helped to make a bed side probable diagnosis of Pancreatitis. Apart from this Cullens sign is also a clinical sign that point to retroperitoneal hemorrhage. The patient described was diagnosed with Acute Hemorrhagic Pancreatitis and admitted in ICU. Thus thorough clinical examination and proper history taking can help make a series of probable differential diagnosis. It is also described that both the Grey Turner and Cullen signs can be present in some other conditions as under

- Retroperitoneal hemorrhage.
- Blunt abdominal trauma
- Ruptured / hemorrhagic ectopic pregnancy.

- Spontaneous bleeding secondary to coagulopathy (congenital or acquired)
- Aortic rupture, from ruptured abdominal aortic aneurysm or other causes.

References

1. Cullen TS. A new sign in ruptured extrauterine pregnancy. Am J Obstet Gynecol. 1918; 78: 457.
2. Harris S, Naina HVK. Cullen's sign revisited. Am J Med. 2008; 121: 682–3.
3. Mookadam F, Cikes M. Cullen's and Turner's signs. N Engl J Med. 2005; 353: 1386.
4. Zhang JQ, Fielding JR, Zou KH. Etiology of spontaneous perirenal hemorrhage: a meta-analysis. J Urol. 2002; 167: 1593–6.
5. An unusual cause of Grey Turner's sign- *BMJ Case Reports* 2013; doi:10.1136/bcr-2013-008836.