

## Clinical Image

### Cullen's Sign in Severe Acute Pancreatitis

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A 58-year-old woman, with a history of diabetes and hypertension, presented with vomiting and severe epigastric pain for 3 days. Physical examination showed a blood pressure of 110/70 mmHg, pulse rate of 100 beats per minute, respiratory rate of 20 breaths and oxygen saturation of 96% on room air. Abdominal examination showed epigastric tenderness with bruising in the subcutaneous fatty tissue around the periumbilical region, consistent with Cullen's sign. Laboratory investigations showed elevated serum lipase level

(1780 U/L, reference range <90U/L) and hence the diagnosis of acute pancreatitis was confirmed. Abdominal ultrasonography revealed cholelithiasis without evidence of choledocholithiasis. Computed tomography was performed and showed a necrotizing pancreatitis with several peripancreatic fluid collections (Balthazar grade E). The patient's condition rapidly deteriorated with multi-organ failure requiring her transfer to the intensive care unit. She died 2 days after hospitalization.

Cullen's sign was first described in 1918 by Thomas S. Cullen, a Canadian gynecologist, in association with a ruptured ectopic pregnancy.<sup>1</sup>

It is a rarely seen clinical sign that consists of a periumbilical ecchymosis, and suggests severe intra-abdominal pathology.<sup>2</sup>

It results from the tracking of haemorrhagic fluid from the retroperitoneum along the gastrohepatic, falciform and round ligament to the subcutaneous periumbilical tissues.<sup>2,3</sup>

Although not specific, it has been historically associated with acute necrotizing pancreatitis and high mortality.<sup>2,4</sup>

Early identification of Cullen's sign is imperative and should lead physicians to promptly start intensive supportive care.

#### References:

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