

A 54-year-old man comes to the physician complaining of fatigue. It is difficult for him to get up in the morning and go to work. He tires easily at work and goes to bed early due to feeling tired and sleepy. He also describes recent upper abdominal pain that is constant and gnawing and interferes with his sleep. The patient's appetite is poor, and he has lost 7 kg (15 lb) during the last month. He has no other medical problems. His medications include over-the-counter ranitidine. The patient works as a police officer. Two months ago, while investigating a serious crime scene, he slipped on blood, fell, and hit his head. He is a former smoker with a 30-pack-year history. Physical examination is significant for tenderness and fullness in the epigastrium. Which of the following is the most likely diagnosis?

- ☐ A. Chronic subdural hematoma
- ☐ B. Duodenal ulcer
- ☐ C. Major depressive episode
- ☐ D. Pancreatic cancer
- ☐ E. Post-traumatic stress disorder

Submit



A 54-year-old man comes to the physician complaining of fatigue. It is difficult for him to get up in the morning and go to work. He tires easily at work and goes to bed early due to feeling tired and sleepy. He also describes recent upper abdominal pain that is constant and gnawing and interferes with his sleep. The patient's appetite is poor, and he has lost 7 kg (15 lb) during the last month. He has no other medical problems. His medications include over-the-counter ranitidine. The patient works as a police officer. Two months ago, while investigating a serious crime scene, he slipped on blood, fell, and hit his head. He is a former smoker with a 30-pack-year history. Physical examination is significant for tenderness and fullness in the epigastrium. Which of the following is the most likely diagnosis?

- ☐ A. Chronic subdural hematoma [9%]
- ☐ B. Duodenal ulcer [25%]
- ☐ C. Major depressive episode [2%]
- ☒ D. **Pancreatic cancer** [63%]
- ☐ E. Post-traumatic stress disorder [1%]

Proceed to Next Item

Explanation:

User Id:

Pancreatic adenocarcinoma	
Risk factors	<ul style="list-style-type: none"><li>• Smoking</li><li>• Hereditary pancreatitis</li><li>• Nonhereditary chronic pancreatitis</li><li>• Obesity &amp; lack of physical activity</li></ul>
Clinical presentation	<ul style="list-style-type: none"><li>• Systemic symptoms (eg, weight loss, anorexia) (&gt;85%)</li><li>• Abdominal pain/back pain (80%)</li><li>• Jaundice (56%)</li><li>• Recent-onset atypical diabetes mellitus</li><li>• Unexplained migratory superficial thrombophlebitis</li><li>• Hepatomegaly &amp; ascites with metastasis</li></ul>



Explanation:

User Id: [REDACTED]

Pancreatic adenocarcinoma	
<b>Risk factors</b>	<ul style="list-style-type: none"> <li>• Smoking</li> <li>• Hereditary pancreatitis</li> <li>• Nonhereditary chronic pancreatitis</li> <li>• Obesity &amp; lack of physical activity</li> </ul>
<b>Clinical presentation</b>	<ul style="list-style-type: none"> <li>• Systemic symptoms (eg, weight loss, anorexia) (&gt;85%)</li> <li>• Abdominal pain/back pain (80%)</li> <li>• Jaundice (56%)</li> <li>• Recent-onset atypical diabetes mellitus</li> <li>• Unexplained migratory superficial thrombophlebitis</li> <li>• Hepatomegaly &amp; ascites with metastasis</li> </ul>
<b>Laboratory studies</b>	<ul style="list-style-type: none"> <li>• Cholestasis (↑ alkaline phosphatase &amp; direct bilirubin)</li> <li>• ↑ Cancer-associated antigen 19-9 (not as a screening test)</li> <li>• Abdominal ultrasound (if jaundiced) or CT scan (if no jaundice)</li> </ul>

©UWorld

This patient has epigastric pain/tenderness and weight loss in the setting of nonspecific systemic symptoms and a significant smoking history. This combination strongly suggests a malignancy affecting the upper gastrointestinal tract or associated solid organs, such as the liver, gallbladder, or pancreas. Among the choices listed, **pancreatic adenocarcinoma** is the most likely diagnosis.

Adenocarcinoma of the pancreas is the fourth leading cause of cancer-related death in the United States and has a mean age of 55 at diagnosis. **Smoking** is an important risk factor. Pancreatic cancer has a very high mortality rate as it is frequently diagnosed at relatively late stages (early-stage disease usually causes only mild, nonspecific symptoms).

Symptoms of pancreatic cancer vary and depend primarily on the location of the tumor. Most (60%-70%) pancreatic cancers originate in the head of the pancreas. These cancers are more likely to present with **jaundice** (common bile duct obstruction) and **steatorrhea** (inability to secrete fat-digesting enzymes or blockage in the main



**Laboratory studies**

- Cholestasis (↑ alkaline phosphatase & direct bilirubin)
- ↑ Cancer-associated antigen 19-9 (not as a screening test)
- Abdominal ultrasound (if jaundiced) or CT scan (if no jaundice)

©UWorld

This patient has epigastric pain/tenderness and weight loss in the setting of nonspecific systemic symptoms and a significant smoking history. This combination strongly suggests a malignancy affecting the upper gastrointestinal tract or associated solid organs, such as the liver, gallbladder, or pancreas. Among the choices listed, **pancreatic adenocarcinoma** is the most likely diagnosis.

Adenocarcinoma of the pancreas is the fourth leading cause of cancer-related death in the United States and has a mean age of 55 at diagnosis. **Smoking** is an important risk factor. Pancreatic cancer has a very high mortality rate as it is frequently diagnosed at relatively late stages (early-stage disease usually causes only mild, nonspecific symptoms).

Symptoms of pancreatic cancer vary and depend primarily on the location of the tumor. Most (60%-70%) pancreatic cancers originate in the head of the pancreas. These cancers are more likely to present with **jaundice** (common bile duct obstruction) and **steatorrhea** (inability to secrete fat-digesting enzymes or blockage in the main pancreatic duct). However, jaundice may appear at a later stage if the tumor arises from the tail or body of the pancreas. Most patients describe epigastric **abdominal pain** that is usually insidious, gnawing, and **worse at night**. However, some patients may not have pain and simply present with **painless jaundice**. Systemic symptoms such as **weight loss and fatigue** are common. Another classic association is **migratory thrombophlebitis** (Trousseau sign).

Diagnosis is established with either ultrasound (less expensive) in patients with jaundice (head tumors) or CT scan (highly sensitive) in patients without jaundice (body and tail tumors).

**(Choice A)** A chronic subdural hematoma from trauma would be more likely in an elderly person and typically presents with headache, personality changes, seizures, confusion, or hemiparesis. Abdominal pain and tenderness with anorexia and weight loss are not expected. Although neurogenic gastric mucosal injury (Cushing ulcer) can be associated with traumatic brain injury, this condition is characterized by acute onset, usually with prominent gastric bleeding and obvious neurologic impairment.

**(Choice B)** Duodenal ulcers can also cause burning epigastric pain. However, the pain is typically periodic and relieved by food, as it is generally a result of acid secretion in the absence of a food buffer. Anorexia and weight loss are less common. Antisecretory therapy with proton pump inhibitors or H<sub>2</sub> receptor antagonists generally provides some



Diagnosis is established with either ultrasound (less expensive) in patients with jaundice (head tumors) or CT scan (highly sensitive) in patients without jaundice (body and tail tumors).

**(Choice A)** A chronic subdural hematoma from trauma would be more likely in an elderly person and typically presents with headache, personality changes, seizures, confusion, or hemiparesis. Abdominal pain and tenderness with anorexia and weight loss are not expected. Although neurogenic gastric mucosal injury (Cushing ulcer) can be associated with traumatic brain injury, this condition is characterized by acute onset, usually with prominent gastric bleeding and obvious neurologic impairment.

**(Choice B)** Duodenal ulcers can also cause burning epigastric pain. However, the pain is typically periodic and relieved by food, as it is generally a result of acid secretion in the absence of a food buffer. Anorexia and weight loss are less common. Antisecretory therapy with proton pump inhibitors or H<sub>2</sub> receptor antagonists generally provides some relief. This patient describes constant pain accompanied by anorexia, weight loss, and systemic symptoms, red flags that should raise suspicion for a malignancy.

**(Choice C)** A major depressive episode could be responsible for fatigue, anorexia, and weight loss, but abdominal pain and tenderness would not be typical. Even if a primary mood disorder is suspected, localized pain with weight loss usually warrants evaluation for occult malignancy.

**(Choice E)** Post-traumatic stress disorder (PTSD) consists of persistent reexperiencing of a previous traumatic event with recurrent attacks of anxiety, hyperarousal, nightmares, and/or flashbacks. This patient may have experienced a stressful event during his criminal investigation, but he does not describe recurrent distressing memories or nightmares related to the event. In addition, PTSD disturbs social and occupational functioning but does not typically cause anorexia, weight loss, or signs of organic disease such as abdominal pain and tenderness.

#### Educational objective:

Pancreatic cancer classically presents insidiously with a combination of constant and gnawing epigastric pain that is frequently worse at night, anorexia with weight loss, and jaundice due to extrahepatic biliary obstruction. A peptic duodenal ulcer typically causes periodic epigastric pain relieved by meals.

#### References:

1. [Pancreatic cancer: diagnosis and management.](#)