electrocardiogram was fortuitously taken at the onset of one such VT-induced cardiac arrest (Figure 1). The first portion of the electrocardiogram shows a sinus tachycardia (with low-amplitude P waves) and first-degree heart block. Undersensing of the intrinsic QRS complex is also noted, leading to inappropriate pacing immediately after the unsensed QRS complex (Figure 1, black arrows). “Loss of capture” is seen but actually represents attempted pacing in the ventricular refractory period caused by lack of appropriate sensing. The final “normal” QRS complex is undersensed, and a pacing output is delivered at the apex of the T wave (R on T phenomenon; Figure 1, asterisk) inducing monomorphic VT. The problem was temporarily remedied by increasing pacemaker sensitivity from 2 to 0.5 mV (reducing the sensing voltage), allowing the temporary pacemaker to “see” the intrinsic QRS complexes better. Because of the clear restoration of an appropriate underlying rhythm, definitive treatment was to switch off and remove the malfunctioning epicardial system. No further VT was observed, and antiarrhythmic medication was discontinued.

DISCUSSION

Although initial implant pacing parameters can be satisfactory, vigilance must be observed for the development of temporary pacing malfunction. In this case the problem was not loss of capture but undersensing of the intrinsic R wave, leading to inappropriate delivery of a pacing spike on the T wave. The consequence of both undersensing and oversensing can be catastrophic. In our case undersensing and inappropriate pacing led to a malignant ventricular arrhythmia and cardiac arrest. Equally, oversensing (mistaken recognition of intrinsic cardiac activity) can lead to pacing inhibition and, in the case of the patient with no underlying rhythm, asystolic cardiac arrest. Suspicions of undersensing should be raised when pacing spikes appear within the QRS or T wave and those of oversensing when pacing spikes do not appear when they should during prolonged pauses or periods of asystole. However, true loss of capture occurs when an appropriately timed pacing spike does not produce a QRS complex at all. Assessing pacemaker sensitivity is often difficult because most temporary systems do not have the inbuilt functionality to measure a patient’s intrinsic R wave, as seen through the pacing leads. One method is to turn the pacing rate low enough to allow intrinsic QRS complexes to predominate. During a steady period of intrinsic ventricular activity (as noted usually by a “V sense” flashing LED on the generator), one increases the sensitivity voltage setting until the system no longer records “V sense,” but a “V pace” event occurs. This voltage is roughly the maximum amplitude of the intrinsic R wave that is seen by the pacing system, and a sufficient margin should be set to avoid oversensing or undersensing issues based on this voltage. If doubt or malfunction still exists, then early collaboration with the electrophysiology team is recommended.

Gastroaortic fistula: A rare and lethal complication of esophageal stenting after esophagectomy

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The use of esophageal stenting for postesophagectomy leak is increasing, with acceptable clinical results.1 Gastroaortic fistula is a potential highly lethal complication of stenting. To increase awareness of this potential complication, we present a case of postesophagectomy gastroaortic fistula after esophageal stenting.

The 53-year-old woman underwent an esophagectomy for T3 adenocarcinoma involving the gastroesophageal junction through a left thoracoabdominal approach with her anastomosis in the left chest at 35 cm. She had an anastomotic leak on postoperative day 6, and this was managed nonoperatively. Unfortunately, her clinical status worsened, and she was referred at 3 weeks postoperatively for intervention. Additional past medical history was also significant for chronic obstructive pulmonary disease, hypertension, anemia, and morbid obesity. She was quite debilitated on arrival in referral with systemic signs of infection. The patient underwent esophagogastroduodenoscopy and placement of a Polyflex esophageal stent (Boston Scientific, Natick, Mass). Right video-assisted thoracoscopic surgical

CLINICAL SUMMARY

A 53-year-old woman underwent an esophagectomy for T3 adenocarcinoma involving the gastroesophageal junction through a left thoracoabdominal approach with her anastomosis in the left chest at 35 cm. She had an anastomotic leak on postoperative day 6, and this was managed nonoperatively. Unfortunately, her clinical status worsened, and she was referred at 3 weeks postoperatively for intervention. Additional past medical history was also significant for chronic obstructive pulmonary disease, hypertension, anemia, and morbid obesity. She was quite debilitated on arrival in referral with systemic signs of infection. The patient underwent esophagogastroduodenoscopy and placement of a Polyflex esophageal stent (Boston Scientific, Natick, Mass). Right video-assisted thoracoscopic surgical

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minal approach for resection. The proximity of the aorta and treated using this algorithm who has had a left thoracoabdo-
means of thoracoscopy. This is the only patient we have exclude the leak and then drained the active infection by
of our standard approach, we placed an esophageal stent to
go which demonstrated a gastroaortic fistula on removal of the stent. An emergency thoracotomy was performed with primary re-
pair of the aorta and esophageal diversion with cervical esophagostomy. She had a difficult postoperative course and died 2 weeks later from multisystem organ failure.

DISCUSSION

Our group has had an extensive experience with esopha-
geal stenting for leaks and perforations. This patient came to us septic and debilitated from an uncontrolled postesopha-
geal stenting for leaks and perforations. This patient came
from pneumococcal pneumonia.1 Conversely, mycotic coronary artery aneurysms are extremely uncommon. We describe a unique case of my-
cotic pseudoaneurysm of the left main coronary artery after pneumococcal pneumonia.

Coronary artery aneurysms are mainly atherosclerotic in origin.1 Conversely, mycotic coronary artery aneurysms are extremely uncommon. We describe a unique case of my-
cotic pseudoaneurysm of the left main coronary artery after pneumococcal pneumonia.

Giant mycotic pseudoaneurysm of the left main coronary artery after pneumococcal pneumonia

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In the patient with a leak who is seen after esophage-
tomy, the complication of gastroaortic fistula has not been reported previously. This case represents one of the first re-
ports of this complication related to the use of esophageal stents3 and should raise concerns regarding esophageal stenting for leak after a left thoracoabdominal approach for esophagostomy because of anatomic considerations.4 There is little doubt that the periaortic infection from the leak con-
tributed substantially to the eventual development of the gas-
troaortic fistula. As esophageal stents become used more widely and with increasing frequency, one should be cau-
tioned regarding this potential complication.

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CLINICAL SUMMARY

A 62-year-old man without a history of cardiac disease had chest discomfort of 3 weeks’ duration. The chest pain was exertional but also varied with the patient’s position.