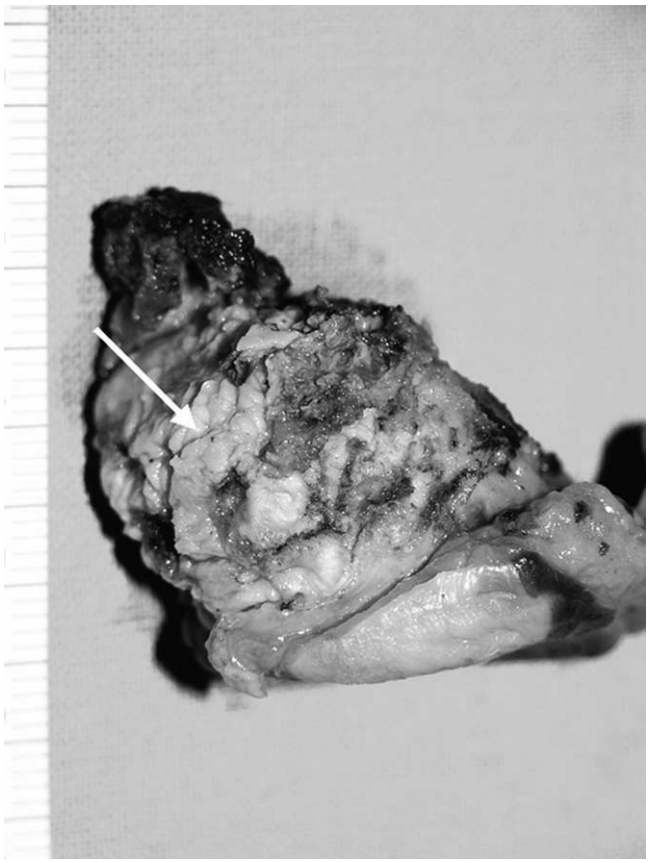

Figure 2 Specimen of laparoscopic cholecystectomy has extensive calcification (white arrow) over the whole circumference of gallbladder wall.

with symptoms of abdominal pain, nausea, vomiting, and fever. Some present asymptomatically with an incidental finding on radiograph.[1] Large solitary calcification in the right upper quadrant of the abdomen on plain radiograph should indicate porcelain gallbladder. The list of differential diagnosis includes a large gallstone, echinococcal cysts, calcified renal cysts, chest wall masses with calcification, degenerative cystic lesions of the pancreas, calcified adrenal tumors, or rarely an atherosclerotic aneurysm of the abdominal aorta.[7,9,10] Definite diagnosis can usually be achieved with abdominal ultrasound or computed tomography scan by showing characteristic calcification of the gallbladder wall. In 95% of patients with porcelain gallbladder, gallstones are accompanying findings.[7] Because of the grave prognosis of gallbladder cancer, prophylactic cholecystectomy is recommended for porcelain gallbladder.[8,11] Recently, because of the relatively low incidence of cancer in completely calcified gallbladders, nonoperative management is proposed for such gallbladders if the operation risk is high.[1,5,10]

Laparoscopic cholecystectomy proceeded smoothly in this patient. The specimen exhibited a stony hard gallbladder with extensive and circumferential transmural calcification (Figure 2), accompanied by 2 small gallstones (not shown). Pathologic examinations documented a porcelain gallbladder without evidence of cancer. The patient made an uneventful recovery.

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doi:10.1016/j.amjmed.2005.04.023

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Reversal of a potent investigational anticoagulant: Idraparinux with recombinant factor VIIa

To the Editor:

Idraparinux is an investigational synthetic pentasaccharide anticoagulant in development as a potent selective inhibitor of Factor Xa administered subcutaneously weekly.[1] Given as a

fixed-dose injection without the need for monitoring of anticoagulation makes it attractive for the treatment and primary and secondary prophylaxis of thromboembolic disease. These properties may be a cause for concern given the lack of a documented antidote. We describe a 74-year-old man who bled significantly following lung cancer resection 1 month after his last dose of idraparinux with reversal of bleeding with recombinant activated Factor VII.

The patient had normal renal function and was healthy except for atrial fibrillation for which he was enrolled in an anticoagulation study. Investigational idraparinux was given subcutaneously weekly for 3 months before the discovery of a lung mass. Two weeks after his last dose, he noted chest wall oozing and hemoptysis immediately following computed tomography-guided fine needle aspiration biopsy. Two weeks later, an open right lower lobectomy was notable for continuous intraoperative oozing with subsequent 3 liters of bloody drainage during the first 12 hours postoperatively with his hematocrit dropping from 30% to 25%. Bleeding continued despite a slightly elevated international normalized ratio of 1.5 with normal partial thromboplastin times, fibrinogen, and platelet levels without change following the administration of 4 units packed red blood cells, 4 units fresh frozen plasma, and 1 unit of a single-donor plateletpheresis. Within 1 hour of administration of 30 μg/kg (2.4 mg) of recombinant Factor VIIa his thoracostomy drainage decreased from 100 to 50 mL/h. His international normalized ratio normalized to 0.8 despite an anti-factor Xa activity level of 0.5 units/mL, indicating continued "therapeutic" anticoagulation with idraparinux. Three hours later bleeding stopped. He had 300 mL of serosanginous drainage over the next 24 hours and was discharged home 3 days later.

The "Holy Grail" of thromboprophylaxis is an easily administered agent with predictable bioavailability and a wide therapeutic index. Warfarin is not this agent.[2] The prolonged half-life (80-130 hours), selective anti-Xa activity, reliable bioavailability, lack of monitoring, and lack of risk of heparin-induced thrombocytopenia make idraparinux an attractive alternative.[3] FDA approval of the oral direct thrombin inhibitor ximelegatran is unclear due to liver function abnormalities in 6% of patients.[4] Nonetheless, as this case demonstrates, the unexpectedly long duration of action of idraparinux raises caution in its use in a patient population prone to falls and the need for elective and emergency surgery. This is the first report of recombinant Factor VIIa stopping bleeding despite therapeutic anticoagulation with idraparinux.[5]

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doi:10.1016/j.amjmed.2005.04.025

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