Hemorrhage into the gallbladder caused by pseudoaneurysm of the cystic artery

A 77-year-old woman was admitted to hospital with cholecystitis. After 8 days of antibiotic treatment she developed hypotension, weakness, and anemia. Abdominal computed tomography showed a tense gallbladder containing blood and a round nodule which enhanced after administration of contrast material (Figure **1**). Doppler ultrasonography showed a nodule with arterial flow and a "ying yang" pattern (Figure **2**), and selective angiography revealed an cystic artery pseudoaneurysm (Figure **3**). Metallic coils were used as embolization material and full occlusion of the aneurysmal sac was achieved.

Hemorrhage into the gallbladder occurs rarely and can result from gangrenous cholecystitis, cystic artery pseudoaneurysm, varicose veins in the gallbladder wall, or tumors [1]. In this case hemorrhage was caused by a pseudoaneurysm. Cystic artery pseudoaneurysms can form secondary to atherosclerosis, or can follow trauma; they can also arise as a result of arterial wall erosion by local inflammatory processes such as cholecystitis [2,3]. The diagnosis is difficult but it may be suggested by abdominal computed tomography and Doppler ultrasonography. Angiography allows for both a definitive diagnosis and simultaneous therapeutic intervention [4].

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Figure **1** Abdominal computed tomography showed blood and a nodule in the gallbladder.

Figure **2** Doppler ultrasonography showed a nodule with a "ying yang" pattern.

Figure **3** Selective angiography revealed a cystic artery pseudoaneurysm (arrow).

References

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