

Polyarteritis Nodosa

ANDREAS P. DIAMANTOPOULOS, MD, Department of Rheumatology; PETTER PETERSEN, MD, Department of Radiology, Hospital of Southern Norway HF, Kristiansand, Norway. Address correspondence to Dr. Diamantopoulos, Department of Rheumatology, Hospital of Southern Norway HF, Kristiansand Service Box 416, 4604 Kristiansand, Norway. E-mail: andreas.diamantopoulos@sshf.no. J Rheumatol 2013;40:87–8; doi:10.3899/jrheum.121036

Polyarteritis nodosa (PAN) is a rare form of vasculitis affecting the medium-size arteries^{1,2}. Even with minimal clinical symptoms, presentation can be dramatic when seen with advanced imaging techniques that show aneurysm rupture and hemorrhage.

A 59-year-old man was admitted to the emergency department with abdominal pain. A C-reactive protein 160 mg/dl, hemoglobin 5.1 g/dl, and blood pressure 153/84 mm Hg were noted. No arthralgias/myalgias, neuropathies, or fever were observed. He had an episode of knee arthritis 1 month before admission. A computed tomography (CT)

scan of the abdomen revealed intraabdominal fluid and rupture of the liver (Figure 1, arrows). An angiogram of the right hepatic artery revealed multiple aneurysms (the largest showed signs of active bleeding; Figure 2, arrow) and stenoses. A successful embolization was performed, isolating the large aneurysm from the circulation and stopping the bleeding.

The patient was diagnosed with PAN^{1,2}. The typical aneurysms and stenoses in conventional angiography are the hallmarks of PAN³. Our patient was initially treated with 1 g of methylprednisolone intravenously (IV) in 3 subsequent

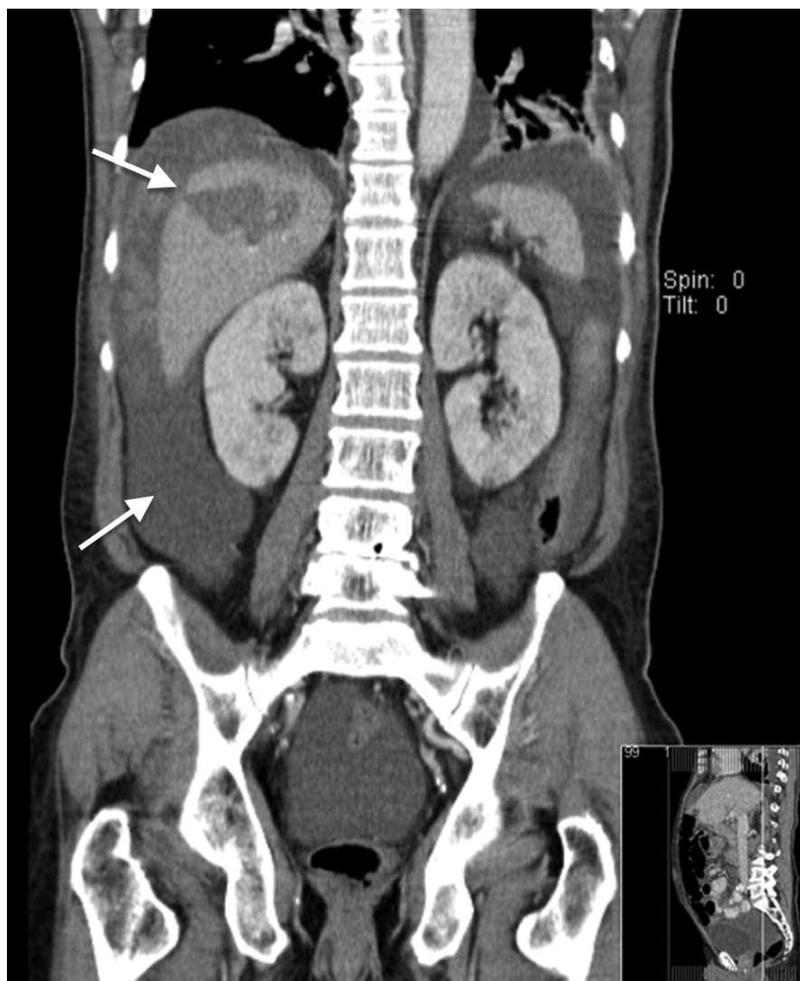


Figure 1. Computed tomography of the abdomen, coronal view. Intraabdominal fluid and rupture of the liver is visible (arrows).

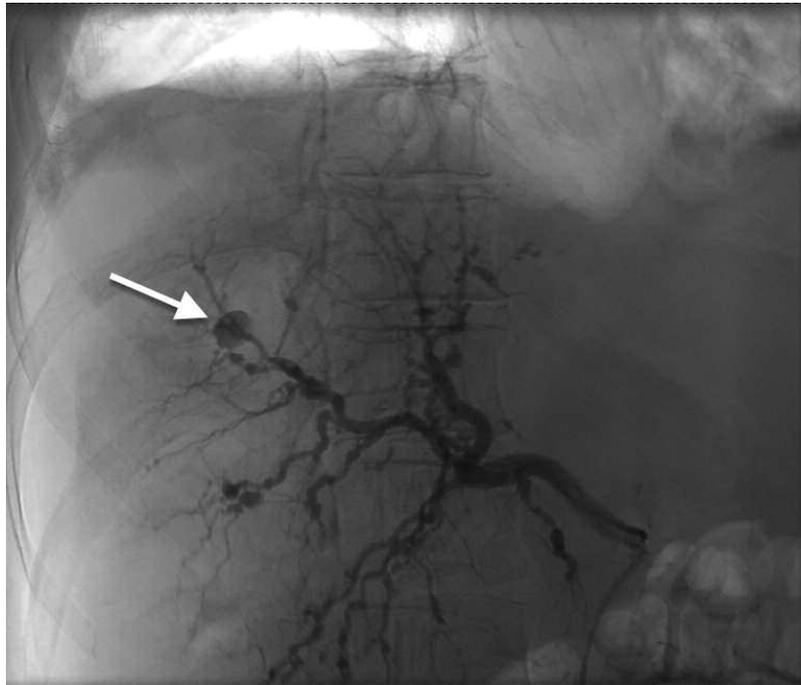


Figure 2. Angiography of the hepatic artery. Microaneurysms and stenoses are visible. The largest aneurysm shows signs of active bleeding (arrow).

days, followed by 80 mg of oral prednisolone daily and monthly IV cyclophosphamide pulses of 700 mg/m³. A rapid improvement of clinical signs and inflammation was noted after the initiation of treatment.

Sixteen months later, the patient continued to be in remission with 150 mg/day of azathioprine and 5 mg/day of prednisolone. The patient has not been re-evaluated with conventional angiography; however, a CT angiography of the abdomen performed after 16 months did not reveal any signs of liver or medium-sized vessel pathology. The noteworthy aspect of our case is the dramatic and fulminant presentation of PAN with aneurysm rupture and abdominal hemorrhage, accompanied by minimal clinical symptoms.

REFERENCES

1. Cohen RD, Conn DL, Ilstrup DM. Clinical features, prognosis, and response to treatment in polyarteritis. *Mayo Clin Proc* 1980; 55:146-55.
2. Haugeberg G, Bie R, Bendvold A, Larsen AS, Johnsen V. Primary vasculitis in a Norwegian community hospital: a retrospective study. *Clin Rheumatol* 1998;17:364-8.
3. Ewald EA, Griffin D, McCune WJ. Correlation of angiographic abnormalities with disease manifestations and disease severity in polyarteritis nodosa. *J Rheumatol* 1987;14:952-6.