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# An incidental intrahepatic portal vein aneurysm

Tesadüfi intrahepatik portal ven anevrizması

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A 45-year-old female patient was admitted to our clinic for medical check-up. Physical examination findings were unremarkable. On gray scale ultrasound, an anechoic area was noted in the Segment I of the liver. Intravenous dynamic contrast uptake magnetic resonance arterioportography revealed that, in the portal venous vascular structures, aneurysmal contrast filling of  $21.5 \times 19.6$  mm in diameter with wide neck was noted in the proximal part of the left branch (Figure 1a-d).

Portal vein aneurysms (PVAs) are defined as the diameter of the main portal vein being >2 cm.<sup>[1]</sup> The

intrahepatic PVA is defined as the diameter of the vein >0.7 cm in normal individuals and >0.85 cm in cirrhotic patients.<sup>[1]</sup> Portal vein aneurysms are rarely seen and account for less than 3% of all visceral venous aneurysms.<sup>[1]</sup> Usually, PVAs are asymptomatic, and clinical manifestations depend on the size and location of the aneurysms. In general, patients present with epigastric pain or gastrointestinal bleeding. Symptoms are related to portal venous hypertension (PVHT) or PVAs complications, such as biliary tract compression/ obstruction, portal vein thrombosis (PVT) or rupture, duodenal compression, upper gastrointestinal bleeding.



Figure 1. Different arterioportography views of portal venous aneurysm. (a) Transvers view, (b) two-dimensional image, (c) axial view, (d) transvers view.

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and inferior vena cava obstruction.<sup>[1]</sup> In addition, PVAs have been reported to be equal in male and female gender with a mean age of diagnosis of 53 years. Acquired PVAs can be also associated with chronic liver disease, PVHT, trauma, postoperative pancreatitis, and invasive malignancy.<sup>[1,2]</sup> It has been suggested that weakness in the portal vein wall and increased pressure due to PVHT are predisposing factors for PVA in patients with cirrhosis.<sup>[2]</sup> In case of thrombosis in PVAs, it can cause nausea, abdominal pain, and fever.<sup>[1,3]</sup> Our case was asymptomatic and its PVA was not complicated. In the treatment of PVAs, conservative treatment of cases with significant complaints and findings of portal hypertension, followed by follow-up of incidentally diagnosed cases is recommended.<sup>[1,4]</sup> We also follow our case as a medical incident, because it was diagnosed incidentally without any evident complaints. Anticoagulant therapy is recommended, if acute PVT develops. Complete or partial recanalization has been reported in 80% of cases with acute PVT.<sup>[4]</sup> Percutaneous thrombolysis or thrombectomy can be also performed, when anticoagulant therapy fails or when the thrombus extends into the splenomesenteric veins, or where the growing aneurysm sac the peripheral organs.<sup>[4]</sup> In our

case, the aneurysm was 21.5×19.6 mm in diameter and asymptomatic and, therefore, no endovascular or surgical intervention was performed.

## **Declaration of conflicting interests**

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# REFERENCES

- Shrivastava A, Rampal JS, Nageshwar Reddy D. Giant Intrahepatic Portal Vein Aneurysm: Leave it or Treat it? J Clin Exp Hepatol 2017;7:71-6.
- Koc Z, Oguzkurt L, Ulusan S. Portal venous system aneurysms: imaging, clinical findings, and a possible new etiologic factor. AJR Am J Roentgenol 2007;189:1023-30.
- López-Machado E, Mallorquín-Jiménez F, Medina-Benítez A, Ruiz-Carazo E, Cubero-García M. Aneurysms of the portal venous system: ultrasonography and CT findings. Eur J Radiol 1998;26:210-4.
- 4. Schwope RB, Margolis DJ, Raman SS, Kadell BM. Portal vein aneurysms: a case series with literature review. J Radiol Case Rep 2010;4:28-38.