

## Portal Vein Aneurysm At The Bifurcation Treated By Laparoscopic Resection And Reconstruction

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**Background** : A portal vein aneurysm is a rare disease entity due to a focal vascular dilatation of the portal vein system. The etiology is still unclear and there are no international treatment guidelines. Usually, an asymptomatic aneurysm is managed conservatively, and radiologic or surgical interventions are considered for an asymptomatic or increased aneurysm.

**Methods** : A 59-year-old male was referred to our center for an asymptomatic portal vein aneurysm that was incidentally discovered on screening. The CT scan follow-up showed that the aneurysm, which was 3.9 cm at first, gradually increased to 4.4 cm after 6 years. It was located at the bifurcation of the portal vein and mainly involved the left branch. Although it did not have complications such as thrombosis, surgical treatment was considered because of its increased size.

**Results** : We first exposed portal bifurcation by performing a left hemi-hepatectomy with a laparoscopic approach. The main portal vein and right portal vein were identified and clamped. The aneurysmal sac was removed by tangential resection and the longitudinal wall defect was closed with the primary transverse suture with the laparoscopic maneuver. Follow up CT scan after two months revealed no aneurysm of the portal vein and patent right portal vein without stricture.

**Conclusions** : This case report suggests that laparoscopic portal vein resection and reconstruction after liver resection can be a good treatment option for portal vein aneurysm that requires treatment and that is located in the bifurcation of the portal vein.

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