

**The advantages of retropancreatic vascular dissection for pancreatic head cancer with portal/superior mesenteric vein invasion: posterior approach pancreatico-duodenectomy technique and the mesopancreas theory**

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**Abstract**

*Background/Aims:* Surgery remains the single hope for long-term survival long-term survival in pancreatic head carcinoma. Portal vein invasion is no longer a contraindication for resection but could be technically challenging. The aim of the present study is to emphasize the advantages of the posterior approach in duodenopancreatectomy with portal vein resection.

*Methods:* The present series includes 16 patients with duodenopancreatectomy and portal/superior mesenteric vein resection and reconstruction duodenopancreatectomy invading the venous axis, performed from 2004 to 2011, and representing one author's experience.

*Results:* A lateral resection with direct suture was performed in 10 patients and the length of the resected venous wall was less than 1.2 cm. A segmental resection was performed in six patients and the length of resected vein did not exceed 3 cm (range, 1.5 – 3 cm). All venous resection extremities were cancer-free at final pathological report. Eleven patients were considered as R0 resection while 5 patients were assessed as R1 at final pathological examination. Postoperative morbidity consisted of: 3 patients with postoperative pancreatic fistulae (grade A – 2 patients; grade C – 1 patient, requiring second look laparotomy for peri-pancreatic abscesses) and 5 patients with delayed gastric emptying grade B.

*Conclusion:* Portal/superior mesenteric vein resection during duodenopancreatectomy is safe and it is facilitated by the posterior approach. Moreover, the posterior approach facilitates total mesopancreas excision during duodenopancreatectomy for pancreatic head cancer, a technical feature that appears to be associated with an increased rate of negative resection margins.

**Key words:** pancreatic cancer, duodenopancreatectomy, portal vein

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