Functioning arterial or venous Riolan arch in locally advanced pancreatic cancer

How it can change tactics?

[1]Egorov V.I., [2]Petrov R.V., [2]Zhurina Ju.V., [3]Zelter P., [4]Petrov K.S., [1]Feldsherov M.V., [1]Amiaga A.V., Amosova E.L.[1,5]Kondratiev E.V.

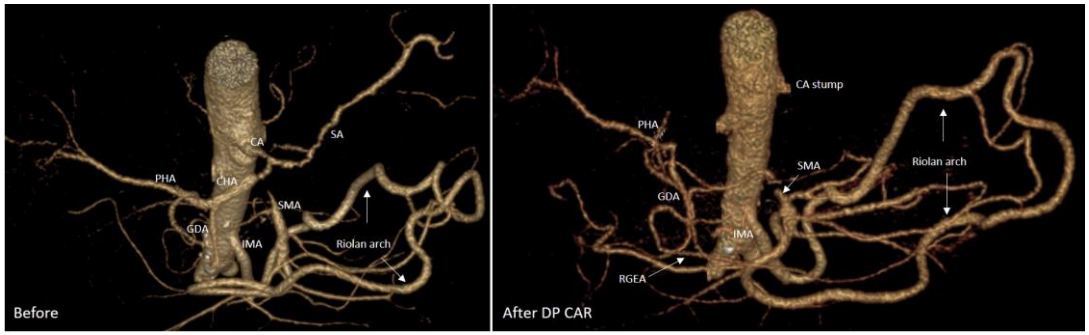
[1]Ilyinskaya hospital, [2]Bakhrushin Brothers Moscow City Hospital, [3]Samara State Medical University, [4]Medscan Diagnostic Centers, [5]Vishnevsky Institute of Surgery, Moscow, Russia

Background. CT is obligatory before pancreatic surgery. Discovery of functioning arterial or venous Riolan arch (FRA) can have substantial influence on tactics.

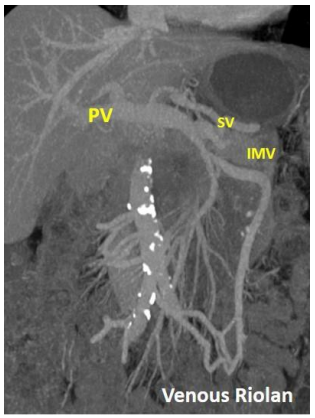
Aim: To assess importance of FRA discloser for decision making before pancreatic surgery.

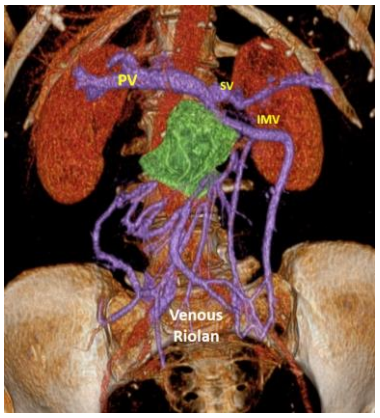
Patients. Retrospective analysis of 554 patients' consecutive preoperative CT data revealed arterial(n2) and venous(n5) FRA in 7 cases. Modification of treatment were assessed.

Results. Arterial FRA was found in pancreatic body cancer(n2). 1.atherosclerotic occlusion of CA and SMA with symptomatic abdominal ischemia; 2.tumor involved CA on the background of endoluminally unreconstructable SMA occlusion. In the first case CA stenting before distal pancreatectomy eliminated symptoms fully. In the second case after FOLFIRINOXn12 R0 DPCAR without SMA reconstruction was done because of good collateral supply. Uneventful postop period, discharge on days 10 and 13. Venous FRA in all the cases of PDAC of the head±body were the sign of full block of all SMV tributaries and already formed outflow through the splenic(SV) and/or inferior mesenteric(IMV) vein. In all these cases efficient neoadjuvant therapy and venous FRA were the weighty argument for pancreatic resection. Thrice it was done without venous reconstruction, twice with IMV transposition in SV, once with SMA resection. Uneventful postop period, discharge on days 10-19. One patient died 44 month (distant mets), the second died 19 months disease-free (MI), others alive 21,18,13,12 and 11 months after treatment.

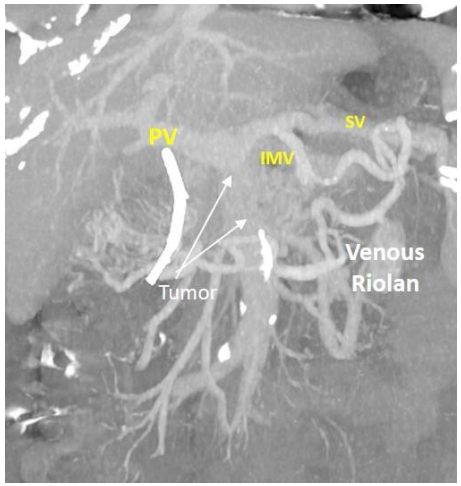


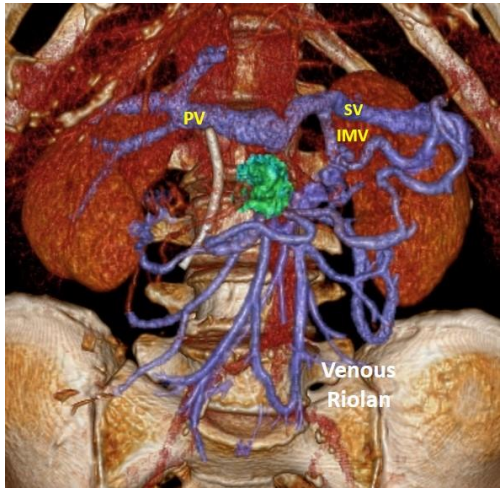
DP CAR for the patient with PDAC of the pancreatic body with CA involvement and unreconstructable SMA occlusion. All the abdominal organs are supplied by Riolan arch, originating from the IMA





Locally advanced («unresectable») PDAC. Involvement of SMA,SMV and all its tributaries. 70 y, ECOG 1, 6 FOLFIRINOX. Constant pain Treated by **R0 total DPE. SMA resection. Excision of the SMV and all its tributaries IMV transposition in the splenic vein stump**





Locally advanced («unresectable») PDAC 64y., ECOG 0, 12 FOLFIRINOX. Involvement and occlusion of the SMV + involvement of all the branches of SMV, treated by **R0 Whipple**. **Excision of the SMV with all the tributaries without reconstruction. Outflow via IMV**

Conclusion: Delineation of FRA before pancreatic surgery is the indication for the change of tactics : consider endovascular treatment for arterial FRA and more aggressive surgery for venous FRA.