

Celiac axis arteriogram and splenoportography are the only reliable means of diagnosing this complication other than operation or autopsy.

References

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DISCUSSION

PROFESSOR J. PHILIP SANDBLOM (Lausanne, Switzerland): I was very interested in commenting on this beautifully presented series of a disorder that has seemed to be very rare. I agree with the authors that it might be occurring more often than has been thought.

The reason for my opinion is that 10 years ago we went through our material of portal hypertension in over 200 patients. By way of splenoportography we found four patients with splenic vein obstruction.

Three of them bled from ruptured esophageal varices. Only one of the four had pancreatic disease as primary cause; the three others were unexplained. They might have been of a different kind than the ones presented. Their symptoms of pain, hemorrhage, and short-lasting ascites recurred several times.

All were treated by splenectomy, and none rebled. One patient died because of recurrent thrombosis that continued up into the mesenteric vein, and a large intestinal resection was performed.

Another point of interest is the source of hemorrhage in portal hypertension. It has been thought that these patients generally bleed from ruptured varices in the esophagus or the fundus of the stomach. If the bleeding source is hemorrhagic gastritis, this has not been thought to be related directly to their portal hypertension. Patients may bleed from many sources in portal hypertension, including the esophagus, the gastric mucosa, and even the biliary tract. Twice I found hemorrhage into the gallbladder.

I think the primary cause is the portal hypertension, through the congestion of the mucosa which secondarily succumbs to the deleterious effects of the gastric juice in hyperacidity and drug abuse. The series that the authors here reported so beautifully is also an example of the fact that the hemorrhage in portal hemorrhage is not necessarily due to burst varicosities of the esophagus.

DR. ATEF SALAM (Atlanta): During the last 18 months we saw five patients with splenic vein thrombosis, three of whom presented with upper GI bleeding. All of them had previous vagectomy and pyloroplasty, although the cause of bleeding was not recognized at the time of surgery.

[Slide] The workup of these patients should include liver catheterization, direct or indirect splenoportography and superior mesenteric angiography. This slide demonstrates the most characteristic angiographic feature of this disease, namely a tortuous, dilated gastroepiploic vein.

The diagnosis may not be made preoperatively if it is not suspected or if the studies could not be done because of severe bleeding. The correct diagnosis can be made at the time of operation if the surgeon is familiar with the operative findings characteristic of this disease. Dilated gastroepiploic veins and gastric varices in absence of any evidence of portal hypertension in the superior mesenteric venous bed should raise the possibility of splenic vein thrombosis. The diagnosis can be confirmed by

threading a catheter through one of the branches of the superior mesenteric vein into the portal vein. [Slide] In contrast to patients with generalized portal hypertension, portal pressure and liver perfusion with portal blood remain normal in patients with isolated thrombosis of the splenic vein. Contrast material injected directly into the portal vein would not opacify the coronary vein of the variceal plexus since the direction of blood flow in these vessels is toward the portal vein.

Finally, I would like to raise two questions regarding the operative management of pancreatic pseudocyst associated with splenic vein thrombosis. Splenectomy in these patients will leave the cyst in free communication with the rest of the peritoneal cavity. I wonder whether Dr. Johnston would agree to staging the operation, namely the cyst is internally drained first and splenectomy is delayed to a later date. The second question is: "What would be the method of choice for internal drainage of the pseudocyst in presence of splenic vein thrombosis?" Dr. Zeppa and Dr. Smith in their excellent presentations indicated that bleeding is sometimes encountered postoperatively following cystogastrostomy. The risk of this complication is even greater in presence of splenic vein thrombosis because of the increased vascularity of the stomach wall associated with this disease. For this reason, we prefer cystojejunostomy for internal drainage of pancreatic pseudocyst in such patients.

DR. RICHARD T. MYERS (Closing): We are aware of the great work Professor Sandblom has done in this area, and thank him for emphasizing the points that were important to us; namely, surprise at the infrequency with which we have encountered it in recent years is probably due more to the increasing incidence of pancreatic disease, rather than our diagnostic acumen.

We would certainly agree that this is a form of localized portal hypertension, and that one must consider the possibility of bleeding from the gastric mucosa as well as the esophageal varices.

Dr. Salam, we thank you for your comments. It's an interesting parallel to the increasing frequency in Winston-Salem and Atlanta. We would agree that the diagnosis cannot be made preoperatively as to the primary etiologic factors concerned.

So far as your posed question, I think in the absence of bleeding from the pseudocyst we would certainly agree that the procedure should be staged.

Finally, in the interest of time, I would like to simply underline and emphasize one of the points; namely, the use of angiography in upper GI bleeding. I think this paper would tend to—at least, to me—indicate the value of looking at the venous phase as well as the arterial phase. We tend to become very enthralled at what is going on within the lumen of the bowel, and not the venous phase of the angiography. This has been a great boon to the preoperative diagnosis and management of gastrointestinal bleeding, and I think, properly extended and utilized, it can be of great value in uncovering some of the obscure causes which we are now missing.