

Fig. 1. Preoperative angiography.

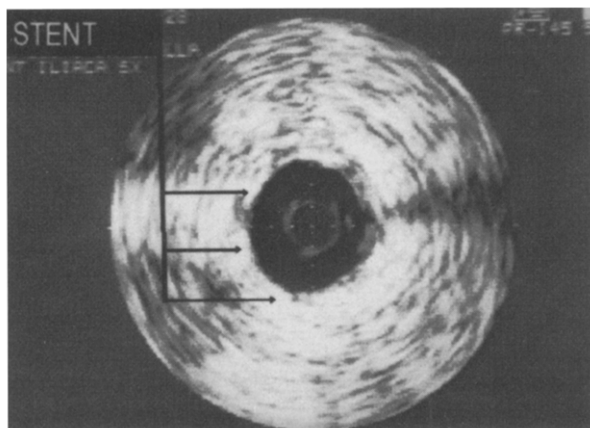


Fig. 3. Postprocedural IVUS control.

CASE REPORT

A 46-year-old woman was admitted in our Institute for symptomatic bilateral thigh and leg claudication in February 1993. Four years earlier she had undergone an anterior resection of the rectum for a metastasized adenocarcinoma. Fractionated irradiation of the pelvis was administered in an adjuvant setting for a total dose of 60 Gy.

Preoperative angiography (Fig. 1) showed a tight stenosis of the external iliac artery on the left side and an obstruction of the external iliac artery on the right side, with normal patency of the other regional vessels. Intraoperative IVUS confirmed stenosis caused by intimal hyperplasia and fibrosis of the media layer (Fig. 2).

The patient was submitted to PTA of the left external iliac artery with a 7-mm-x-4-cm Olbert catheter (Meadox-Surgimed, Stenlose, Denmark) and subsequent insertion of two P304 Palmaz stents (Johnson & Johnson Intervention Systems Co., Warren, N.J.). A left-to-right femoro-femoral cross-over bypass was performed in the same

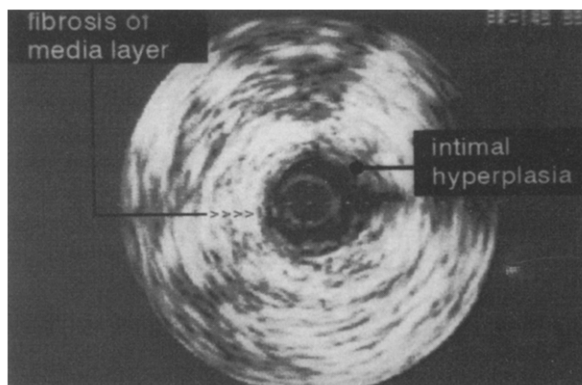


Fig. 2. Predilatation IVUS monitoring.

operative session using a 6-mm polytetrafluoroethylene graft.

The intraoperative IVUS control confirmed the good expansion of the stents (Fig. 3). The postoperative course was uneventful and the patient was discharged on antiplatelet therapy.

Six months after surgery the patient is still asymptomatic with normal tibial pulses. Radiation-induced arteriopathy is an ingravescent chronic lesion involving a myointimal hyperplasia and a remarkable fibrosis of the arterial outer layers resulting in stenosis and obstruction of the irradiated vessels.

Based on these findings, we believe that a mechanical support, such as an endovascular stent is to be favored to prevent the immediate elastic recoil caused by fibrotic degeneration and to contrast the long-time evolution of this inflammatory chronic lesion.

The proximal and the distal end of the stent must be placed on healthy tissue. The endovascular procedures are better supported by accurate intraoperative IVUS monitoring to define the real limits of the lesion and to control complete expansion of the stent.

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Regarding "Should percutaneous transluminal angioplasty be recommended for treatment of infrageniculate popliteal artery or tibioperoneal trunk stenosis?"

To the Editors:

We are writing to you about the article by Treiman et al, which appeared in the October 1995 issue (*J Vasc Surg* 1995;22:457-65).

The authors stated that infrageniculate popliteal artery percutaneous transluminal angioplasty is an expensive, temporizing measure with a high rate of recurrence and should be restricted to patients who have a limited life expectancy or contraindications for surgery. We believe that it is not safe to draw this conclusion for the following reasons.

First, the authors themselves state that the results will depend on whether distal disease is present. It is entirely unclear from the paper, however, whether any of these patients had distal disease at the time of infrageniculate popliteal artery percutaneous transluminal angioplasty, because if they did, then it is hardly surprising that the results are poor without going on to deal with the distal disease as well.

Second, the authors have drawn conclusions on 1-month, 2-year, and 3-year patency rates that are entirely unjustified on the basis of the data presented. Thus the standard error of the patency rate is greater than 10% beyond 11 months, and they quote patency rates at 2 and 3 years when only six and five patients were present, respectively. In addition, the use of a mean follow-up is meaningless, thus the mean follow-up is stated as 44 months, but it is apparent from the life table plot that there are only five patients at and beyond 36 months and that this figure of 44 months is therefore a result of 1 or 2 patients with long follow-up.

We therefore feel that the conclusions drawn are not safe in light of the paucity of the data provided.

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Reply

To the Editors:

In response to the issues that Dr. Bell raises, we specifically noted the number of patent tibial arteries and ankle-brachial index for all patients in our study, and our analysis found that this did not affect outcome. We found that treatment of a preocclusive popliteal lesion provided enough increased perfusion to ameliorate symptoms. In addition, patients treated with bypass to the tibioperoneal trunk had a good clinical outcome, despite the presence of similar distal disease.

We have reported our results in accordance with the reporting standards for lower extremity arterial endovascular procedures. On our life table plot, we noted that the standard error exceeds 10% at 11 months. However, many of the infrageniculate popliteal artery percutaneous transluminal angioplasty procedures failed within this early time period, with 41% recurrence within 1 year. Although further long-term follow-up may be helpful in assessing the results from bypass procedures, most of which were still patent, it

would not affect the success of percutaneous transluminal angioplasty, because the majority of procedures had already failed.

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Angioembolization of multiple intrasplenic pseudoaneurysms as a result of blunt trauma

To the Editors:

Posttraumatic intrasplenic pseudoaneurysms have rarely been reported. Concern for delayed rupture has usually led to a recommendation for partial or total splenectomy.¹ We report a case of successful nonoperative management of multiple intrasplenic pseudoaneurysms using arteriography and transcatheter embolization.

CASE REPORT

A 39-year-old seat belt–restrained driver was involved in a crash in which the automobile he was operating was struck laterally by a truck. The patient's initial blood pressure was 107/56 and pulse was 98 beats per minute. Examination revealed moderate left upper-quadrant abdominal tenderness. The hemoglobin level was 14 gm/dl. Computed tomographic scan of the abdomen demonstrated multiple left rib fractures, bilateral pleural effusions, and multiple lacerations of the spleen with perisplenic hemorrhage (Fig. 1, A). The patient remained hemodynamically stable, and the splenic injury was managed without surgery. Hemoglobin determinations over the ensuing 5 days reached a nadir of 8.4 gm/dl. No blood transfusions were administered. An abdominal computed tomographic scan taken at 1 week showed resolution of intraperitoneal blood and a new 2-cm area of marked enhancement in the middle third of the spleen (Fig. 1, B). Color-flow duplex ultrasound demonstrated two additional pseudoaneurysms within the spleen. Selective splenic artery angiography demonstrated all three pseudoaneurysms (Fig. 2). Angioembolization of the segmental arteries that fed two small inferior pseudoaneurysms was performed with three 0.018-inch microcoils. Superselective catheterization of the upper pole segmental branches to embolize a third large pseudoaneurysm was unsuccessful because of tortuosity. The main splenic artery was then embolized using an 8-mm Gianturco coil. Digital subtraction arteriography after these procedures demonstrated no flow in the embolized pseudoaneurysms. Two weeks after discharge, the patient's hemoglobin level was 12.1 gm/dl, and color-flow duplex ultrasound demonstrated that all three pseudoaneurysms remained thrombosed. The patient remains well at 1 year.

DISCUSSION

The treatment of blunt splenic trauma has shifted from nearly routine splenectomy to splenic salvage techniques,