Materials and Methods: Patients

Of these patients, five (table 1) presented with a thrombosed HeRO graft for percutaneous intervention for a total of 11 interventions. Of the 6 interventions with recurrent early thrombosis, two patients (pts 2 and 3), and intragraft stenting was performed in two (pts 3 and 5).

In these durable interventions, angioplasty was performed greater than 4 weeks (mean 135 days, median 116 days). Of the 11 interventions, 5 resulted in durable patency of the HeRO graft for percutaneous intervention for a total of 11 interventions.

First-time thrombosis of the HeRO graft occurred at a mean of 150 days (range 51-321 days).

Of the 11 interventions, 5 resulted in durable patency of the HeRO graft for percutaneous intervention for a total of 11 interventions.

Discussion

• Of utmost importance is that the catheter tip terminates at the caval/atrial junction. If the catheter tip is left short, this potentially increases the risk for fibrin sheath formation and dysfunction of the catheter tip (Pt. 1).

• Intragraft stenosis/adherent thrombus appears to represent the most common abnormality now that the venous anastomosis has been eliminated. The more proximal you can place the arterially directed access, the higher the success of treating the area of stenosis/clot with one access.

• With the HeRO graft, a cause of thrombosis is not always identified (pts 3 and 5) or the intragraft stenosis is "mild-moderate." One theory is that the additional length of synthetic material with a lumen of 5-6 mm provides a "mild-moderate." One theory is that the additional length of synthetic material with a lumen of 5-6 mm provides a

Materials and Methods: Single access thrombolysis

Introduction

There are two components to the HeRO graft. The venous outflow component is a 5 mm silicone catheter which is placed through the stenosed or occluded central veins with the distal tip placed at the caval/atrial junction, thus eliminating a venous anastomosis. The arterial graft component is a 6 mm ePTFE graft which is attached to the artery utilizing a standard arterial anastomosis. The graft is tunneled in a superficial soft C-curve (to maximize area of conduit) and is attached to the venous outflow component.

The arterial graft is placed through the stenosed or occluded central veins with the distal tip placed at the caval/atrial junction, thus eliminating a venous anastomosis. The arterial graft component is a 6 mm ePTFE graft which is attached to the artery utilizing a standard arterial anastomosis. The graft is tunneled in a superficial soft C-curve (to maximize area of conduit) and is attached to the venous outflow component.

• T7 sheath is directed towards the arterial anastomosis.
• An occlusion balloon is partially inflated in the artery and the fibrin plug and clot is pulled back to the sheath.
• The occlusion balloon is deflated and the sheath and occlusion balloon are pushed forward in tandem.
• Occlusion balloon re-inflated to protect the artery, saline is forcibly injected into the sheath, pressurizing the graft and clearing the venous side of the graft.

Results: Lesions and interventions

Results: Lesions and interventions

Interventions for patient 1

Interventions for patient 2

Interventions for patient 3

Interventions for patient 4

Interventions for patient 5

Table 1: Patient demographics

Table 2: Interventions

Table 3: Outcomes of Interventions

Discussion

• Of utmost importance is that the catheter tip terminates at the caval/atrial junction. If the catheter tip is left short, this potentially increases the risk for fibrin sheath formation and dysfunction of the catheter tip (Pt. 1).

• Intragraft stenosis/adherent thrombus appears to represent the most common abnormality now that the venous anastomosis has been eliminated. The more proximal you can place the arterially directed access, the higher the success of treating the area of stenosis/clot with one access.

• With the HeRO graft, a cause of thrombosis is not always identified (pts 3 and 5) or the intragraft stenosis is "mild-moderate." One theory is that the additional length of synthetic material with a lumen of 5-6 mm provides a more thrombogenic environment than the typical PTFE graft. The current practice of our vascular surgery department (JL, SG) is to place the patient on Plavix to prevent thrombosis events. Future studies to determine whether this is critical are underway.

Results: Lesions and interventions

Interventions for patient 1

Interventions for patient 2

Interventions for patient 3

Interventions for patient 4

Interventions for patient 5

Table 1: Patient demographics

Table 2: Interventions

Table 3: Outcomes of Interventions

Discussion

• Of utmost importance is that the catheter tip terminates at the caval/atrial junction. If the catheter tip is left short, this potentially increases the risk for fibrin sheath formation and dysfunction of the catheter tip (Pt. 1).

• Intragraft stenosis/adherent thrombus appears to represent the most common abnormality now that the venous anastomosis has been eliminated. The more proximal you can place the arterially directed access, the higher the success of treating the area of stenosis/clot with one access.

• With the HeRO graft, a cause of thrombosis is not always identified (pts 3 and 5) or the intragraft stenosis is "mild-moderate." One theory is that the additional length of synthetic material with a lumen of 5-6 mm provides a more thrombogenic environment than the typical PTFE graft. The current practice of our vascular surgery department (JL, SG) is to place the patient on Plavix to prevent thrombosis events. Future studies to determine whether this is critical are underway.