Development of Effusive-Constrictive Pericarditis after Iliofemoral Venous Stent Migration

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Case

48F with non-thrombotic venous occlusive disease, CAD, HTN, T2DM, obesity, and Sickle Cell Trait

Stenting

- Presents to local vein specialist for persistent claudication and lower extremity edema
- 2 stents placed (L iliac and L femoral veins, respectively)
- Discharged on oral anticoagulation (OAC)

Migration

- Presents to ED for persistent claudication
- Venogram reveals migration of L common iliac stent
- CT localized stent fragment in R atrium with associated pericardial effusion (PEff)
- Underwent atriotomy to remove stent fragment (9cm)
- OAC continued at discharge

Effusion Recurrence

- Presents to ED with dyspnea, lightheadedness, & orthopnea
- TTE with large PEff and clinical findings of tamponade
- Pericardial drain placed & 1L bloody effusion removed

8m 3d

Effusive-Constrictive Pericarditis (ECP)

- Patient develops cyclical fevers and positional chest pain
- Repeat TTE reveals re-accumulation of PEff (1-1.5cm) but signs of ventricular interdependence consistent with ECP (see poster figures)

Clinical Decision Making

How to manage effusive-constrictive pericarditis?

- Prior cardiac surgery
- Improving symptoms
- Recurrent bloody effusions
- Retained stent fragment
- Patient preference
- No prior thrombosis
- Guidelines limited

Use of anticoagulation after venous stenting?

Figure 1. The apical four chamber view. Note the small pericardial effusion (red arrows) and thickening of the visceral pericardium (green brackets).

Figure 2. Pulse wave doppler of the hepatic vein. Flow below baseline is towards the heart and flow above is away from the heart. Note the hepatic vein expiratory, diastolic flow reversal (blue crosses).

Figure 3. Pulse wave doppler of MV inflow tract. There is marked respiratory variation inflow across the mitral valve, with ~30% decrease in E wave amplitude with inspiration (annotated with arrows above). Diagram in upper right hand corner is of respiratory variation seen in constrictive physiology (figures 3&4.)

Figure 4. Pulse wave doppler of TV inflow tract. There is marked respiratory variation inflow across the tricuspid valve, with a ~50% decrease in E wave amplitude with expiration (annotated with arrows above). See figure 3 for diagram description.

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