CLINICAL CHALLENGE
The patient was a 41-year-old female with gangrene of the first and fifth toes of the right foot for six months. The patient had a history of heavy smoking (> 20 cigarettes / day) without any other significant risk factors.

Angiography of the right lower extremity revealed total Superficial Femoral Artery (SFA) and popliteal occlusion with reconstitution of the anterior tibial artery with continuous run-off to the foot.

The patient had a usable single segment Greater Saphenous Vein (GSV) greater than 3 mm in diameter.

PROCEDURE
A femoral to anterior tibial bypass with the ipsilateral reversed GSV was performed. A palpable DP pulse was acquired on completion. Intraoperative heparin was administered with heparin drip post-operatively.

The GSV bypass thrombosed on day four. The patient was re-explored and a graft thrombectomy and completion angiogram were performed. No technical issues were noted on completion angiogram, but the graft re-thrombosed on the table. The vein graft was excised and a 6 mm GORE PROPATEN® Vascular Graft was sewn to a small cuff of vein that was left attached to the proximal and distal anastamosis.

Platelet count was at 78,000 post-op day one, a marked reduction from the pre-procedure platelet count of 293,000. All heparin use was discontinued and the ELISA test came back Heparin Induced Thrombocytopenia (HIT) positive. The graft was patent at this point and it was decided not to explant it. ARGATROBAN® Therapy was initiated for anticoagulation. Platelet counts were found to be recovering the next day and returned to normal three days after the systemic heparin was discontinued. The patient was converted to COUMADIN® Tablet Therapy with a normal platelet count in five days. HIT panel was repeated and was again positive.
RESULTS
The patient is currently at her nine-month follow-up with duplex evidence of a patent GORE PROPATEN® Vascular Graft, palpable DP pulse and healed toes.

PHYSICIAN COMMENTS
The GORE PROPATEN® Vascular Graft remained patent and viable where a single segment GSV with a diameter greater than 3 mm did not in the face of HIT syndrome. The heparin-bonded graft does not appear to elicit HIT as the graft remained patent, despite heparin on the luminal surface of the graft being exposed to the systemic circulation, and the condition resolved. This incidence of HIT appears to be related to the systemic administration of heparin. With few other reports of similar cases of patent GORE PROPATEN® Vascular Grafts in patients with HIT secondary to systemic heparin administration, it allows us to be cautiously optimistic that in the event of similar clinical situations, the graft may be left in-situ.