Table 4. Algorithmic Approach for BK Interventions

1. Ipsilateral antegrade access under US and fluoroscopic guidance
2. Endoluminal crossing and POBA first.
   a. If unsuccessful → careful SI crossing is attempted
3. SI crossing:
   b. Avoid damaging distal target vessel
   c. Be prepared for worsening ischemia due to damaged collaterals if you are unable to reenter or damage the target vessel
   d. If SI unsuccessful
      i. Patient uncomfortable but the limb stable, or high contrast and radiation dose → staged procedure
      ii. Otherwise, proceed with careful retrograde approach
4. Retrograde approach:
   e. Can be adopted as primary approach when:
      i. Flush occlusion of the tibial vessels
      ii. Complete chronic occlusion of the distal popliteal artery extending into the three tibial vessels
   f. Proximal access in the CFA (antegrade approach allows for catheter to be in the SFA)
   g. Distal access:
      i. Enable more proximal puncture if possible, otherwise,
         1. Pedal artery → ATA
         2. Retromalleolar → PTA
      ii. Use 21-22 gauge micropuncture short needle
      iii. Under US (or road map) guidance
      iv. No sheath, use 3 Fr dilator, 0.014 wire + low profile microcatheter (“bareback”) or low profile OTW balloon (Amphirion Deep – Invatec)
      v. Snare kit to capture wire in SFA
      vi. Hemostasis obtained by prolonged, low-pressure (“touch-up”) balloon inflation and hemostasis must be verified angiographically
5. PTA first approach always advocated
   h. Provisional/bailout stenting as needed
      i. Use dedicated SE stents BTK stents for dissection and/or suboptimal result
      ii. Use BE drug-eluting stents for calcific and/or ostial lesions
6. Vessel perforation can be a serious complication and may cause compartment syndrome. Immediate balloon inflation over the presumed inflation site is recommended.