A retrospective review of patient charts was performed in the clinic of senior author, J.C.C. Five patients with persistent recurrent ankle pain following TAA were identified. All patients in this study had end-stage ankle arthritis as determined by clinical assessment and a full series of ankle radiographs. Ankle implantation was performed by the senior author (J.C.C.) in all cases. Three replacements were performed using a mobile bearing system and two utilizing a long tibial-stemmed, two-component implant device. 

During the post-operative course, all five patients developed persistent, recurrent ankle pain following TAA. They were further evaluated clinically, and treated via a conservative regime of bracing, anti-inflammatory medications and physiotherapy. When there was suspicion of infection, laboratory studies were ordered to help rule out an infectious process (CBC with differential, ESR, and CRP). New x-rays were obtained, however, the specific area of pain remained unclear. Complete diagnosis is essential for guiding surgical correction or continuation of conservative care.

Other studies have shown that in the evaluation of post-operative complications with total knee and total hip replacements, with the ability to guide surgical decision making. In a study by Al Nahas et al., a retrospective analysis on 69 patients with knee pain following total arthroplasty, and what was found to be highly useful is the use of SPECT/CT with regard to recalcitrant pain following TAA. In our retrospective review, we describe the clinical presentations of five patients with recurrent ankle pain following TAA. After infection is ruled out, clinical and roentgenographic evaluation leaves definitive diagnosis elusive. We propose that SPECT/CT is a useful tool in localizing and differentiating post-operative ankle pain in the TAA patient, and thus effectively guiding treatment.