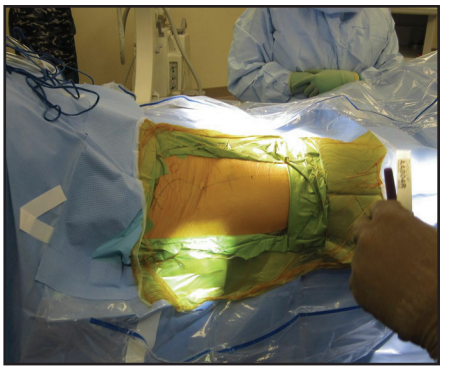

Figure 1-2. Intraoperative markings of the skin incision, and superior extension of the approach. The ASIS is noted by the circle.

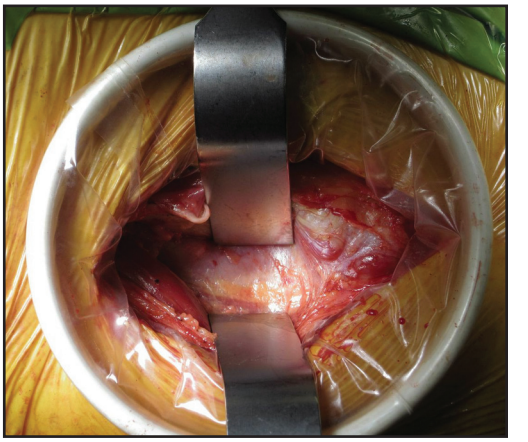

Figure 1-3. Intraoperative photograph showing the interval between vastus lateralis and rectus femoris, with the superficial layer between TFL and sartorius being retracted.

Incision placement is centered over the tensor fascia lata (TFL) muscle, which is located about 2 to 3 cm lateral and 1 cm distal to the ASIS (Figure 1-2).[5] The TFL is a large muscle belly that originates broadly from the ASIS and anterior iliac crest, coalescing over the greater trochanter into the iliotibial band and inserting into Gerdy's tubercle at the tibia (see Table 1-1). Even in obese patients, the TFL belly is identifiable by internally rotating the hip. By retracting the TFL laterally, the interval between it and the sartorius is entered to gain access to the deeper musculature and anterior hip capsule.

The Hueter approach uses the skin incision over the TFL muscle belly in order to stay lateral and distal to the branches of the LFCN that are between the tensor and sartorius. The LFCN arborizes into a gluteal branch and a femoral branch; these extend laterally from the main trunk. These branches are at risk over the entire length of the incision, particularly from 24 to 92 mm distal to the ASIS.[6] The rate of LFCN neurapraxia, while clinically insignificant, can be as high as 81% after the DAA total hip arthroplasty (THA).[7]

The deep anatomy is between the vastus lateralis and rectus femoris (Figure 1-3). The arcade of vessels arising from the ascending branch of the lateral femoral circumflex artery (usually a 3 vessel complex) should be ligated or cauterized effectively; otherwise, bleeding will compromise further steps. Note that the rectus femoris has 2 origins: a direct head off the ASIS and an indirect head off the superior acetabulum and hip capsule. The indirect head along with the iliocapsularis muscle should be elevated off the capsule and superior rim of the acetabulum to gain capsular exposure (Figure 1-4). The iliocapsularis is a